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ABSTRACT

This report updates the study "The Doctorate in Education" published by the American Association of Colleges for Teacher Education in 1960 (ED 046 872 through ED 046 875). A questionnaire set up to examine the same areas of inquiry as the AACTE study was mailed to 145 institutions which had been identified as offering doctoral programs in education. The 113 respondents were divided into two categories--"old institutions" and "new institutions." The first referred to those which were in the original study; the latter referred to those which had begun offering the doctorate in education since that time. The report presents detailed information on characteristics of the institutions, recent production of doctoral graduates in education, admission requirements, curricular requirements, and related conditions such as housing and finance. Comparisons are made between old and new institutions and between Ph.D. and Ed.D. programs. The report finds that as the Ph.D. has begun to drop the foreign language requirement and made other changes toward similarity with the Ed.D., it has become the more popular degree. Few differences were found between old and new institutions. The report also noted that the four areas which produced the greatest numbers of doctorates were school administration, guidance and counseling, educational psychology, and higher education. The final chapter includes other conclusions and recommendations and outlines of "typical" Ed.D. and Ph.D. programs. (SP 005 145 reports a similar study of Canadian institutions.) (RT)

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THE DOCTORATE IN EDUCATION

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An Inquiry into Conditions Affecting Pursuit of the Doctoral Degree in the Field of Education

THE INSTITUTIONS

prepared for
Phi Delta Kappa Commission on Higher Education
and
The American Association of Colleges for Teacher Education

by

Neville Robertson
Jack K. Sistler

PHI DELTA KAPPA
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This book is a project of the Phi Delta Kappa Commission on Higher Education, composed of M. L. Cushman, Chairman; Wade Arends; John E. King; John T. Wahlquist; John Dale Russel; August Eberle; J. W. Lee (PDK Board Liaison); and Maynard Bemis (PDK Staff Liaison)

FOREWORD

This is the fifth publication of the Phi Delta Kappa Commission on Higher Education. The Commission was created by the 30th Biennial Council in 1966 with the general charge of determining what Phi Delta Kappa should do in recognizing that "growth in enrollments and the needs for additional faculty, buildings and equipment have created a crisis in higher education." Meeting twice per year for the last five years the Commission has stimulated several studies and reports concerned largely with personnel for higher education. Two of these reports were written by Commission member, Dr. John Wahlquist, one being a recruitment brochure and the other a study of recent innovations in the preparation of college teachers. Dr. James S. Counelis edited a publication designed to improve the preparation of professors of education and Dr. Robert H. Kinker has started a series on the preparation of instructors for junior colleges.

Two of the Commission members, Dr. John King and Dr. M. L. Cushman, were members of the Studies Committee of the American Association of Colleges for Teacher Education (AACTE) in the late fifties and recognized the value of the landmark study of institutions granting the doctorate in professional education. They and the other Commission members felt that a replication of that study would permit comparisons of the circumstances a decade later.

The Commission acknowledges with gratitude the overseeing of the present study by Dr. John King and the conducting of the study by Dr. Neville Robertson and Mr. Jack Sistler.

Further details of the nature and design of the study are set forth in Chapter I.

M. L. Cushman
Chairman,
Commission on Higher Education

OTHER PRODUCTS OF THE PHI DELTA KAPPA COMMISSION ON HIGHER EDUCATION

Counelis, James Steve (Ed.) *To Be A Phoenix, The Education Professoriate.* Bloomington, Indiana: Phi Delta Kappa, Inc., 1969. Pp. 104.

Kinker, H. Robert. *The Capture and Care of Techological Subjects Instructors in the Junior College.* Bloomington, Indiana: Phi Delta Kappa. Inc., 1970, Pp. 38.

Robertson, Neville L. *The Doctorate in Education in Canada.* Ocassional Paper No. 12. Bloomington, Indiana: Phi Delta Kappa, Inc., 1971 (In press).

Wahlquist, John T. *College Teaching as a Challenging Career.* Bloomington, Indiana: Phi Delta Kappa, Inc., 1967, Pp. 16.

Wahlquist, John T. *Innovations in the Preparation of College Teachers.* Bloomington, Indiana: Phi Delta Kappa, Inc., 1970, Pp. 61.

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A project of this nature entails the dedication and cooperation of many people. To bestow appropriate credit where it is due becomes an almost impossible task but the authors wish to express their sincere appreciation and gratitude to those very many participants whose constructive suggestions and very real participation made this study possible.

The American Association of Colleges for Teacher Education has maintained a long term interest in the problem of the doctorate in education and the studies the Association has conducted over the years pays ample testimony to this. We are therefore particularly indebited to the excellent support, genuine cooperation, and invaluable assistance we received from the Association at every stage of the project. We particularly wish to record our deep appreciation to Edward C. Pomeroy, executive director, and Mark Smith, associate director, for their constant encouragement, sound guidance and genuine help at all times.

We should also like to express our appreciation to all the members of the Phi Delta Kappa Commission on Higher Education whose helpful suggestions and advice have lessened our task considerably. We would particularly like to single out for special mention Dr. John E. King, who, in trying to determine if the output of qualified doctorates in the field of Education was meeting the needs of the country, not only suggested the study but was also instrumental in the setting up of the cooperative relationship between the American Association of Colleges for Teacher Education and Phi Delta Kappa International in order to conduct the survey. His leadership, guidance, and support have proved invaluable.

In the drawing up of the questionnaire and in the administration of the pilot study Dr. Arliss Roaden, the Ohio State University, Drs. Egon Guba and Philip L. Peak, Indiana University, Dr. Donald Robinson, Southern Illinois University, and Dr. J. Marc Jantzen, University of the Pacific, gave unspairingly of their time and contributed very significantly to the construction of the final instrument.

The questionnaire used in this study was extensive and was particularly time-consuming for those who were called upon to provide the information required in it. It obviously necessitated much sacrifice both in time and effort from already busy schedules on the part of those administrators who so graciously consented to participate. No greater contribution was made to this study than by these gentlemen and the return of more than ninety-three per cent of the questionnaires was not only most gratifying but a real tribute to the genuine contribution on the part of these concerned educators.

We would also like to acknowledge the help given us in our telephone follow-up by members of the professional staff of Phi Delta Kappa International. Phi Delta Kappa Board of Directors Drs. J. W. Lee and Donald J. Murphy also gave us invaluable assistance in this regard.

A special word of appreciation by both of us to Drs. Maynard Bemis, Executive Secretary Emeritus, Phi Delta Kappa, and William J. Gephart, Director of Research Services, is in order at this point. Both of these gentlemen have at all times offered us sincere encouragement, constructive guidance and real assistance.

The authors wish to thank Mr. Kenneth W. Cockrum of Sesser, Illinois, for the use of his computing equipment in this study.

Special appreciation must also be expressed to Mrs. Patti Brennan of International headquarters staff. Not only did she have to cope with an extensive and complex manuscript, but she approached her task with an ever-present spirit of cooperation and efficiency. Her many constructive suggestions made a most valuable contribution to the study.

Neville L. Robertson
Jack K. Sistler

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CHAPTER I

NATURE AND DESIGN OF THE STUDY

Background of the Study

In 1960 the American Association of Colleges for Teacher Education published the landmark study THE DOCTORATE IN EDUCATION, its purpose being an inquiry into conditions affecting the pursuit of the doctoral degree in the field of Education. At that time it seemed appropriate to examine the growing problem of supplying an adequate number of qualified faculty personnel in colleges and universities to meet the projected influx of students in the decade ahead. This was a national concern and teacher education was very much part of the picture. Not only was the number of qualified doctoral graduates of particular import, but also serious considerations and searching questions were being asked about the future of doctoral education preparation. Specifically, the study attempted first to analyze the nature of selected conditions and requirements in the field of professional Education for the purpose of identifying areas needing improvement; second, it hoped to reveal distinctive and interesting practices which would lead to positive modifications in the administration of advanced graduate Education; and third, it aimed at providing a picture of the possible future of doctoral production in the field.[1]

The above study was in two phases. The doctoral graduate phase was developed through a questionnaire sent to recipients of the degree, while the institutions phase proceeded along similar lines by seeking responses through a questionnaire from administrators at institutions granting doctoral degrees in Education during the two-year period 1956-58. The primary purpose behind the study was to identify normative tendencies among the institutions participating. The investigators did not have as a basic principle of their survey an evaluative study but rather one in which needs, possible weaknesses, and tentative improvements could be examined and possibly implemented. Ninety-two universities and colleges in the United States were identified as offering doctoral programs in Education and 81 (or 89%) of these participated in the study.

A 1967 report by the National Academy of Sciences indicated that both in 1958 and in 1966 the number of doctorates earned in the field of Education was 17.0 percent of the total number of doctorates conferred. The same report indicated an average growth rate of 9.3 percent per year for all doctorates conferred and 9.5 percent in the field of professional Education.[2] These figures pointed to the need to investigate and evaluate the present status of doctoral programs in professional Education as we enter the critical decade of the seventies. The preparation of teachers and educational administrators in such numbers, and the emergence of such innovative projects as those funded by the Education Professions Development Act, demand a sound base from which further planning and decision-making may be launched. The AACTE study pointed out the severity of the problem concerning the quantity production of quality teachers with doctoral degrees for colleges and universities. In particular, there was concern about the possible overproduction and underproduction in certain areas of concentration in the field of Education. As more than a decade had elapsed since this study, it was felt that it was timely to conduct a status report to examine present conditions.

In March 1969, the Commission on Higher Education of Phi Delta Kappa adopted the motion to bring about, if feasible, the updating of the study THE DOCTORATE IN EDUCATION which was made by the Studies Committee of the American Association of Colleges for Teacher Education in 1958.[3] The cooperation of AACTE was sought as to how the study might best be conducted. By July, 1969, the

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[1]Harold E. Moore, John H. Russel, and Donald G. Ferguson, The Doctorate in Education, Vol. II The Institutions (Washington D.C.: American Association of Colleges for Teacher Education, 1960), p. 1.

[2]Fred D. Boercker, ed., *Doctoral Recipients from United States Universities 1956-1966* (Washington, D. C.: National Academy of Sciences, 1967), p. 9.

[3]Commission on Higher Education, Phi Delta Kappa, Minutes of Meeting in Chicago, Illinois, March 28-29, 1969, p.4.

project was launched, a close liaison between AACTE and PDK established, and a research director appointed.

The terms of reference for this study were established as: (1) a replication of the institutions phase of the 1956-58 AACTE study as far as was possible and to include new institutions offering the doctoral program in Education in addition to the original 92 institutions; (2) a survey of selected Canadian universities offering the doctor's degree in professional Education; (3) the establishment of an information retrieval and dissemination center on doctoral programs in Education as part of the Research Services Center of Phi Delta Kappa International, Bloomington, Indiana.

Method of Procedure

A questionnaire was set up to examine the same areas of inquiry as had been established in the AACTE study. The original instrument was not updated as it was not possible to locate a copy of it. In its place, a close scrutiny was made of the items reported in the tables of the 1956-58 study and the questionnaire was developed accordingly. Where further information was deemed to be necessary in light of the changed conditions, as compared with a decade earlier, these items were added. Following a close examination by a panel of each item as to clarity and to eliciting specific responses, the modified instrument was pretested at four institutions, which conferred the doctorate in the field of Education and which were also part of the population of the study. These were The Ohio State University, Indiana University, Southern Illinois University at Carbondale, and the University of the Pacific. As a result of the pretest, the questionnaire was condensed by revising and restructuring certain items, as well as by deleting sections which might elicit data of questionable value. In addition, there was some minor reorganization of format. For its final screening, members of the Commission on Higher Education, Phi Delta Kappa, analyzed the content of the instrument and suggested further refinements.

The Participants

The final questionnaire was mailed to 145 institutions which had been identified as offering doctoral programs in professional Education. Included in this number were the original 92 from the AACTE study, the balance being institutions which had either positively entered the field or had given some indication that they were about to embark upon such a program. One hundred and thirty-four of these institutions had been identified through three principal sources[4] and the other 11 were institutions reporting that doctoral programs had been approved. This information was obtained from current catalogues and bulletins from the respective institutions.

The Questionnaire

The questionnaire was mailed in January, 1970. Follow-up letters were sent in March and April, 1970. In late May and early June further contact was made by means of telephone calls, urging institutions to return their questionnaires. By the deadline of July 1, 1970, 136 institutions had responded out of the total of 145 amounting to a 93.8 percent return. Of these 136 institutions, 113 had completed the questionnaire, 21 reported that they did not have doctoral programs in Education, and two did not choose to participate in the study.

Catalogue File

As in the previous study, a file of current catalogues and bulletins from the 145 institutions was maintained to clarify information with regard to such areas as admissions and curricular requirements. The survey instrument, however, was again the final authority where responses from the institutions appeared to be in conflict with the catalogue information.

Treatment of the Data

On receipt of the completed questionnaires, these were microfilmed and encoded on to punch cards for retrieval purposes at the Research Services Center, Phi Delta Kappa International. As in the case of the AACTE study, the data were then tabulated and reported in a manner that would reveal normative tendencies and make overall descriptions possible. Again relevant interrelationships were established between the two different doctorates in Education - Doctor of Education and Doctor of Philosophy, between private and public institutions offering these degrees, and between doctoral programs administered by the College of Education and the Graduate College.

A particular facet of the current study was a close examination of those institutions which had begun to offer and confer the doctorate in Education since the completion of

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[4]Marjorie O. Chandler, ed., *Earned Degrees Conferred: 1966-67,* Part B - Institutional Data (Washington, D. C.: United States Office of Education, 1968), p. 2.

Fred D. Boercker op. cit. p. 262.

Joseph F. Metz, Jr., ed., *Teacher Productivity - 1966* (Washington, D. C.: American Association of Colleges for Teacher Education, 1967), 110 pp.

the AACTE study. The practices and procedures employed by these New Institutions, as they were designated, were contrasted and compared with those operating at colleges and universities which had constituted the population at the time of the AACTE study.

Doctoral production by geographical region, by areas of concentration, and by administrative control were again examined and analyzed. Admission requirements, curricular practices, and related conditions such as finance, recruitment, and housing were also investigated.

The questionnaire included a number of open-ended questions for the purpose of ascertaining areas of critical shortage. Specifically, administrators were asked to list significant curricular changes in doctoral programs, which had been made in the previous ten years. In addition, they were requested to list the three most critically needed program expansions, for which they considered that additional persons in the field of Education at the doctoral level were needed. This information was presented in tabular form along with interpretive remarks. These data were related to projected degree production in the decade ahead. The primary purpose of these projections was not quantitative but to examine trends and to ascertain whether these were appropriate to future needs.

The AACTE study was committed to a policy of withholding the names of institutions in relation to practices, requirements, or conditions that would tend to reflect unfavorably upon any particular university or its staff members. The investigators in the current study have obligated themselves to this same commitment.

CHAPTER II

GENERAL INFORMATION ON INSTITUTIONS OFFERING THE DOCTORATE IN EDUCATION

As indicated in Chapter 1, there were apparently 145 colleges and universities which offered and conferred the doctorate in Education. In this number were included a number of institutions which might have initiated a doctoral program although no definite confirmation had been established. As such it was realized that a number of institutions might well be excluded from the study on the grounds that they did not in fact offer the doctoral program in Education.

Questionnaires were sent to all 145 institutions but 21 responded indicating that they did not offer the program, thereby confirming that 124 colleges and universities did offer and confer the doctorate in Education. It should be noted, however, that three institutions which participated in the 1956-58 AACTE study, were not included in this final total as they had terminated their programs in the intervening period.[1]

Of the 124 institutions, 11 did not return their questionnaires. This left a participating group of 113 institutions on which the major part of the study was based. Data on the non-participating group were gathered from other sources[2] and were used for general information concerning the total population.

Throughout the study, when reference was made to the *Total Group*, all 124 institutions were included. When reference was made to the *Participating Group*, only the 113 institutions which returned questionnaires were included. This latter group constituted 91.1 percent of the total population. Another distinction which was noted in this study was that between the *Old Institutions* and the *New Institutions*. The first referred to those which were in the 1956-58 study, while the latter referred to those institutions which had begun offering and conferring the doctorate in Education since that time. A summary of general information for the Total Group is given in Table A in the Appendix.

THE TOTAL GROUP

Types of Institutions

According to Table 1, the most prominent type of institution among the Total Group was the state university, of which there were 82, constituting 66.2 percent of the total. The next largest group was the private university with a total of 35 institutions and accounting for 28.2 percent of the total.

TABLE 1

TYPES OF INSTITUTIONS AMONG TOTAL GROUP 1965-69

Type of Institution	Old		New		All	
	No.	%	No.	%	No.	%
State University	57	64.1	25	71.4	82	66.2
Private University	27	30.3	8	22.9	35	28.2
Private College	–	–	2	5.7	2	1.6
Private Teachers College	2	2.3	–	–	2	1.6
Municipal University	1	1.1	–	–	1	0.8
Private Graduate School	1	1.1	–	–	1	0.8
State General College	1	1.1	–	–	1	0.8
Total	89	100.0	35	100.0	124	100.0

Of the remaining 7 institutions, these identified themselves under five different headings, there being two private colleges, two private teachers colleges, a private graduate school, a municipal university (state affiliated), and a state general college. Similar distributions were noted both for the Old Institutions and for the New Institutions, but certain shifts were observable.

Degrees Offered

In the 124 institutions, there were 98 Ph.D. programs

[1]These institutions were Radcliffe College, which discontinued its program in 1962; North Carolina College at Durham, whose program ceased in 1964; and Bradley University which terminated its program in 1965.

[2]Mary Evans Hooper and Majorie O. Chandler, eds., *Earned Degrees Conferred:* 1967-68, Part B – Institutional Data (Washington, D.C.: United States Office of Education, 1969) pp. 45-81.

and 97 Ed.D. programs. As indicated in Table 2, 72 or 58.1 percent of all the institutions offered both degrees; 26 offered only the Ph.D. degree; while 25 offered only the Ed.D. degree. There was one institution which did not fall into any of these categories.[3]

TABLE 2

DEGREES OFFERED BY INSTITUTIONS IN TOTAL GROUP
1965-69

Degrees Offered	Old Institutions		New Institutions		All Institutions	
	No.	%	No.	%	No.	%
Ph.D. only	15	16.9	11	31.4	26	21.0
Ed.D. only	16	18.0	9	25.7	25	20.1
Both	58	65.1	14	40.0	72	58.1
Other	–	–	1	2.9	1	0.8
Total	89	100.0	35	100.0	124	100.0

As noted in Table 3, nearly twice as many Ph.D. programs were offered at public institutions as were operating in private institutions, while Ed.D. programs at public institutions doubled those at private institutions. There was little difference between the number of Ph.D. and Ed.D. programs at public institutions, the figures being 65 and 66 respectively. A similar situation prevailed for private institutions where 33 Ph.D. and 31 Ed.D. programs were reported. In the case of institutions offering both the Ph.D. and the Ed.D., little difference was noted between the public and private institutions. The former type offered both programs in 57.8 percent of cases while private institutions showed a figure of 58.5 percent where both the Ph.D. and the Ed.D. were offered. In the case of the Ph.D. program only, there was little appreciable difference existing between public and private institutions. However, in the case of Ed.D. programs only, a more perceptible difference was noted in favor of the public institution, a percent figure of 21.7 being recorded for the public as opposed to 17.1 percent in the case of the private institution.

THE PARTICIPATING GROUP

Types of Institutions

As seen from Table 4, the state university was the most prominent type of institution in the Participating Group with 73 institutions falling into this category. The next largest group was the private university, of which there were 33. Of the remaining seven institutions, two identified themselves as private colleges, two as private teacher colleges, and one each as a municipal university, a private graduate school, and a state general college. A similar distribution for both Old Institutions and New Institutions was observed. The picture was not unlike that reported for the Total Group and shown in Table 1, although the numbers and percents differ.

TABLE 4

TYPES OF INSTITUTIONS AMONG PARTICIPATING GROUP
1965-69

Type of Institution	Old		New		All	
	No.	%	No.	%	No.	%
State University	51	61.5	22	73.3	73	64.5
Private University	27	32.5	6	20.0	33	29.2
Private College	–	–	2	6.7	2	1.8
Private Teachers College	2	2.4	–	–	2	1.8
Municipal University	1	1.2	–	–	1	0.9
Private Graduate School	1	1.2	–	–	1	0.9
State General College	1	1.2	–	–	1	0.9
Total	83	100.0	30	100.0	113	100.0

TABLE 3

DEGREES OFFERED BY PUBLIC AND PRIVATE INSTITUTIONS IN TOTAL GROUP
1965-69

Degrees offered	Old Institutions				New Institutions				All Institutions			
	Public		Private		Public		Private		Public		Private	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Ph.D. only	8	13.8	7	22.6	9	36.0	2	20.0	17	20.5	9	22.0
Ed.D. only	11	19.0	5	16.1	7	28.0	2	20.0	18	21.7	7	17.1
Both	39	67.2	19	61.3	9	36.0	5	50.0	48	57.8	24	58.5
Other	–	–	–	–	–	–	1	10.0	–	–	1	2.4
Total	58	100.0	31	100.0	25	100.0	10	100.0	83	100.0	41	100.0

[3]Springfield College which offered the Doctor of Physical Education (D. P. E.)

Degrees Offered

As indicated in Table 5, 67 institutions or 59.3 percent of the Participating Group offered both degrees. Twenty-two institutions offered the Ph.D. only, while 23 offered the Ed.D. only. While a relatively close resemblance existed for the distributions of All Institutions and Old Institutions, a more even proportioning for the different types of programs was noted in the case of the New Institutions. There was, however, a striking closeness between the percents given in Table 5 and the corresponding percents given in Table 2 for the Total Group.

TABLE 5

DEGREES OFFERED BY INSTITUTIONS IN PARTICIPATING GROUP 1965-69

Degrees Offered	Old Institutions		New Institutions		All Institutions	
	No.	%	No.	%	No.	%
Ph.D. Only	12	14.4	10	33.3	22	19.5
Ed.D. Only	16	19.3	7	23.3	23	20.3
Both	55	66.3	12	40.0	67	59.3
Other	–	–	1	3.4	1	0.9
Total	83	100.0	30	100.0	113	100.0

Of the 113 institutions in the Participating Group, 89 offered Ph.D. programs and 90 offered Ed.D. programs. Ph.D. Programs at public institutions almost doubled those offered at private schools; and more than twice the number of Ed.D programs were offered at public institutions as compared with private. Little difference was noted between the number of Ph.D. and Ed.D. programs at public institutions. A similar situation existed at private institutions.

Some difference, however, was noted with regard to the percent of institutions which offered both the Ph.D. and the Ed.D. programs. More than 60 percent of public institutions offered both degrees while 56.4 percent of private institutions were so involved. This was a greater difference than that indicated for the Total Group as shown in Table 3. There were also distinct differences between public and private institutions which offered the Ph.D. only or the Ed.D. only. It was also noted that the differences between public and private institutions were generally greater for both the Old Institutions and the New Institutions. This information is given in Table 6.

Administrative Control

Respondents were called upon to indicate which administrative unit within the institution was responsible for the administration of the doctoral program and for awarding of doctoral degrees. Three basic types of control were identified. First, there were programs controlled by the College of Education. Second, there were those which came under the control of the Graduate School. Third, a dual arrangement existed whereby the lines of administrative responsibility were seen to lie both within the College of Education and the Graduate College.

An analysis revealed a distinct difference between the two degrees. As indicated in Table 7, more than three times as many Ed.D. programs as Ph.D. programs were administered by the College of Education. On the other hand, more Ph.D. programs than Ed.D. programs fell under the responsibility of the Graduate College. The dual control arrangement, however, was almost equal with regard to the numbers of Ed.D. and Ph.D. programs.

TABLE 6

DEGREES OFFERED BY PUBLIC AND PRIVATE INSTITUTIONS IN PARTICIPATING GROUP 1965-69

Degrees Offered	Old Institutions				New Institutions				All Institutions			
	Public		Private		Public		Private		Public		Private	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Ph.D. only	5	9.6	7	22.6	8	36.4	2	25.0	13	17.6	9	23.1
Ed.D. only	11	21.2	5	16.1	5	22.7	2	25.0	16	21.6	7	17.9
Both	36	69.2	19	61.3	9	40.9	3	37.5	45	60.8	22	56.4
Other	–	–	–	–	–	–	1	12.5	–	–	1	2.6
Total	52	100.0	31	100.0	22	100.0	8	100.0	74	100.0	39	100.0

TABLE 7

ADMINISTRATIVE RESPONSIBILITY FOR DOCTORAL PROGRAMS IN EDUCATION 1965-69

Degree Program	Old Institutions								New Institutions								All Institutions								Total Programs		
	Coll. of Ed.		Grad School		Dual		Other		Coll. of Ed		Grad School		Dual		Other		Coll. of Ed		Grad School		Dual		Other		Old	New	All
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%			
Ph.D.	6	9.0	35	52.2	25	37.3	1[a]	1.5	–	–	12	54.5	9	40.9	1[c]	4.6	6	6.7	47	52.8	34	38.2	2	2.3	67	22	89
Ed.D.	18	25.4	27	38.0	24	33.8	2[b]	2.8	1	5.3	7	36.8	11	57.9	–	–	19	21.1	34	37.8	35	38.9	2	2.2	71	19	90
Other[d]	–	–	–	–	–	–	–	–	–	–	1	100.0	–	–	–	–	–	–	1	100.0	–	–	–	–	–	–	–

aSocial Science Division
bGraduate School of Education
cSpecial Committee
dD.P.E.

Of the 89 Ph.D. programs, six or 6.7 percent, were under the control of the College of Education; 47 or 52.8 percent, were under the control of the Graduate College; and 34, or 38.2 percent, were administered by dual arrangement. The 90 Ed.D. programs were distributed in the following manner. Nineteen or 21.1 percent of these programs were under the control of the College of Education; 34 or 37.8 percent fell under the jurisdiction of the Graduate College; while dual control operated for 35 or 38.9 percent of Ed.D. programs.

Although similar distributions of administrative control were noted in the Old Institutions and the New Institutions, one difference did emerge. Slightly more Ph.D. programs were administered by dual arrangement at the Old Institutions, while the edge was in favor of the New Institutions and Total Institutions in the case of the Ed.D. programs operating under this means of administrative control.

Four respondents did not categorize their administrative control under any of the above three headings. These identified the Social Science Division,[4] the Graduate School of Education,[5] and a Special Committee[6] as the unit responsible for administering programs.

Data were not available on administrative arrangements for those institutions that did not return questionnaires. Consequently no analysis was possible for the Total Group.

Faculty Personnel - Total Institution

In 95 of the participating institutions, the median size of full-time faculty in all departments was 835 members - 18 institutions did not furnish data for this analysis. Nearly two-fifths of the institutions had total faculties of less than 700 members. The smallest institution employed 41 full-time faculty members, while the largest institution among the respondents had 2,928. Just under one tenth or 9 institutions employed more than 2000 faculty members on a full-time basis. These figures pointed to but one dimension of the diverse nature of the group of institutions that offered the doctorate in Education. This information is given in Table 8.

Full-Time Education Faculty

One hundred and three of the participating institutions responded to the question pertaining to the number of full-time faculty members that were in the Education unit. A total number of 8,904 was reported. Here again the wide diversity among institutions was confirmed, the smallest institution reporting four full-time Education faculty members and the largest 320 members. The median was 68.7. The largest number of full-time Education faculty within any university in the participating group was reported by New York University which was also the third highest producer of doctoral degrees during the study period.

[4]University of Chicago.
[5]Rutgers University and University of Pennsylvania.
[6]University of Delaware.

TABLE 8

SIZE OF FULL-TIME FACULTY
IN ENTIRE INSTITUTION[a]

Full-time Faculty	Number of Institutions	Percent
0-99	3	3.1
100-299	7	7.4
300-499	15	15.9
500-699	13	13.9
700-899	14	14.7
900-1099	14	14.7
1100-1299	8	8.4
1300-1499	7	7.4
1500-1699	4	4.2
1700-1899	1	1.0
1900-2099	2	2.1
2100-2299	1	1.0
2300-2499	1	1.0
2500-2699	2	2.1
2700-2899	2	2.1
2900-3099	1	1.0
Total	95	100.0
Total Full-time Faculty	90,400	
Mean	891 Full-time Faculty	
Range	41-2928 Full-time Faculty	

[a]Does not include laboratory-school personnel. Eighteen institutions did not furnish this information.

The relationship between size of full-time Education faculty and production was by no means as straightforward as suggested in the case of New York University. A rank-order correlation of 0.43 existed between the two variables among the Participating Group. This was certainly not a perfect relationship although it was significant at the .01 level. However, it did imply that some institutions with a smaller faculty were producing some of the larger groups of doctoral graduates and vice versa. This obviously meant that in certain institutions faculty members were required to carry heavier graduate instructional loads than in others. It would be wrong to assume, however, that an ideal faculty-student ratio has been established and that a particular load has been designated as ideal. Too many other variables impinge upon the teaching-learning experiences for a definitive statement to be made upon this matter. As indicated in Table 9, more than one-half of the responding institutions had fewer than 74 full-time faculty members, whereas 11 institutions had in excess of 195 full-time faculty members in the Education unit.

It was estimated that in 1966-67, 73.6 percent of total full-time faculty in Education units had earned their doctorates. This figure was arrived at by means of a survey of 97 institutions offering the doctorate in Education.[7] Information as to this particular feature among the remaining 27 institutions within the Total Group was not available. It would be reasonably safe to assume that the great bulk of graduate instruction was handled by this section of the full-time faculty. The degree to which part-time faculty were able to assist in this regard, was probably heavily determined by the level of their academic qualifications and the quality of their experience.

TABLE 9

SIZE OF FULL-TIME FACULTY
IN EDUCATION UNIT[a]

Full-Time Faculty	Number of Institutions	Percent
1-14	4	3.9
15-29	12	11.7
30-44	14	13.6
45-59	13	12.6
60-74	13	12.6
75-89	10	9.7
90-104	7	6.8
105-119	10	9.7
120-134	4	3.9
135-149	2	1.9
150-166	1	1.0
165-179	1	1.0
180-194	1	1.0
195-209	2	1.9
210-224	2	1.9
225 and Above	7	6.8
Total	103	100.0
Total Full-time education faculty	8,904	
Mean	86.4 Full-time Faculty	
Range	4-320 Full-time Faculty	

[a]Does not include laboratory-school personnel. Ten of the respondents did not provide data needed for this particular analysis.

7*American Universities and Colleges* 10th Edition, edited by Otis A. Singletary, American Council on Education: Washington, D. C. 1968. 178 pp.

Part-Time Education Faculty

In addition to 8,908 full-time faculty members (excluding laboratory-school personnel), there were 2,742 part-time faculty members in the Education units in the 100 institutions which responded to this particular inquiry. According to Table 10, the mean number of part-time faculty members in the Education unit was 27.4, with six institutions reporting none and one reporting as many as 211.

TABLE 10

SIZE OF PART-TIME FACULTY IN EDUCATION UNIT[a]

Part-Time Faculty	Number of Institutions	Percent
0	6	6.0
1-14	42	42.0
15-29	19	19.0
30-44	16	16.0
45-59	7	7.0
60-74	5	5.0
75-89	0	0.0
90-104	1	1.0
105-119	0	0.0
120-134	1	1.0
135-149	0	0.0
150-164	0	0.0
165-179	2	2.0
180-194	0	0.0
195-209	0	0.0
210-224	1	1.0
Total	100	100.0

Total Part-time education faculty 2,742
Mean 27.4 Part-time faculty
Range 0-211 Part-time faculty

[a]Does not include laboratory-school personnel. Thirteen of the respondents did not provide data needed for this analysis.

It was apparent from the above breakdown that policy regarding part-time personnel within Education units varied considerably. Two-thirds of the institutions employed less than 29 such faculty members, whereas three universities had in excess of 165 faculty members on a part-time basis. It was not possible to gather definitive data as to the qualifications of this particular group or as to their instructional roles. Should these faculty members have paralleled the trend of their counterparts in the 1956-58 AACTE study, when a relatively high proportion of them were following their own doctoral studies either at the same or another institution, it would be reasonable to assume that these personnel did not engage heavily in graduate instruction.

CHAPTER III

RECENT PRODUCTION OF DOCTORAL GRADUATES IN EDUCATION

The data in this chapter have been analyzed with regard to the Total Group of institutions offering the doctorate in Education, as well as the Participating Group, those institutions which responded to the questionnaire. As was the case in the 1956-58 AACTE study, wherever published sources were available to supplement information on production for non-participants, the data were used to permit as inclusive a picture as possible. One major change, however, was that the period under review in the Current Study was one of four years – 1965-69 – as compared with the two-year period of the AACTE study.

THE TOTAL GROUP

Since 1958 the annual doctoral production in Education has maintained its upward growth which was noted at the time of the AACTE study.[1] Whereas in 1957-58 when 1801 doctoral degrees in Education were conferred, the number had risen to 4722 in 1968-69. This represented a production increase of 162.2 percent for the decade. This increase was, however, by no means steady. From the 1801 degrees conferred in 1957-58, as established by the AACTE study, there was a definite drop in the following years until 1961-62 when the previous high point was exceeded. Thereafter, and including the years of the Current Study, the upward growth was maintained. This information is presented in Figure 1.

It is well to note that the growth in the number of doctoral degrees in Education conferred during the 1958-1968 period was by no means confined to that field alone. Figure II, showing the percentage of doctoral production in all fields, 1967-68, placed Education as the most productive field, but the figure of 17.7 percent of doctorates in all fields was at a slightly lower level than the 18.3 percent recorded in 1958.[2]

Production During the Study Period

During the four-year period 1965-69, the 124 institutions in the Total Group produced 15,140 doctorates in Education, the median being 84. Of these, 13,694 or 90.4 percent were produced at the Old Institutions and 1,446 or 9.6 percent were conferred at the New Institutions. As can be seen from Table 11 there was a slight but steady decrease as a percent in doctoral production by the Old Institutions as compared with the New Institutions for the period under review.

TABLE 11

DOCTORAL PRODUCTION OF TOTAL GROUP
1965-1969

	Old Institutions		New Institutions		All Institutions	
Year	No.	%	No.	%	No.	%
1965-66	2878	94.2	177	5.8	3055	100.0
1966-67	3145	92.1	270	7.9	3415	100.0
1967-68	3533	89.5	415	10.5	3948	100.0
1968-69	4138	87.6	584	12.4	4722	100.0
1965-69	13694	90.4	1446	9.6	15140	100.0

Viewing the type of institution involved in the doctoral production, it was determined that about 70 percent of the doctorates for the four-year period were conferred at public institutions, while about 30 percent were produced by private schools. This was maintained for each of the four years investigated. About 63 percent of doctorates during this period conferred at Old Institutions were at public colleges, while private institutions of this group produced some 28 percent of the doctoral graduates. The breakdown at the New Institutions, on the other hand, revealed about seven percent at public institutions and about three percent at private. This information is contained in Table 12 and was further confirmation of the increasing influence of the New Institutions in doctoral production in Education. Each of the four years under study showed a decrease in the percent produced by both public and private institutions at the Old Institutions.

Turning specifically to the 124 institutions producing the 15,140 doctoral graduates in Education during the four-year period, it was immediately apparent that not only

[1]Harold E. Moore, John H. Russel, and Donald G. Ferguson, The Doctorate in Education, Volume II The Institutions (Washington, D.C.: American Association of Colleges for Teacher Education, 1960), p. 13.

[2]Moore, Russel, and Ferguson, op. cit. p. 147.

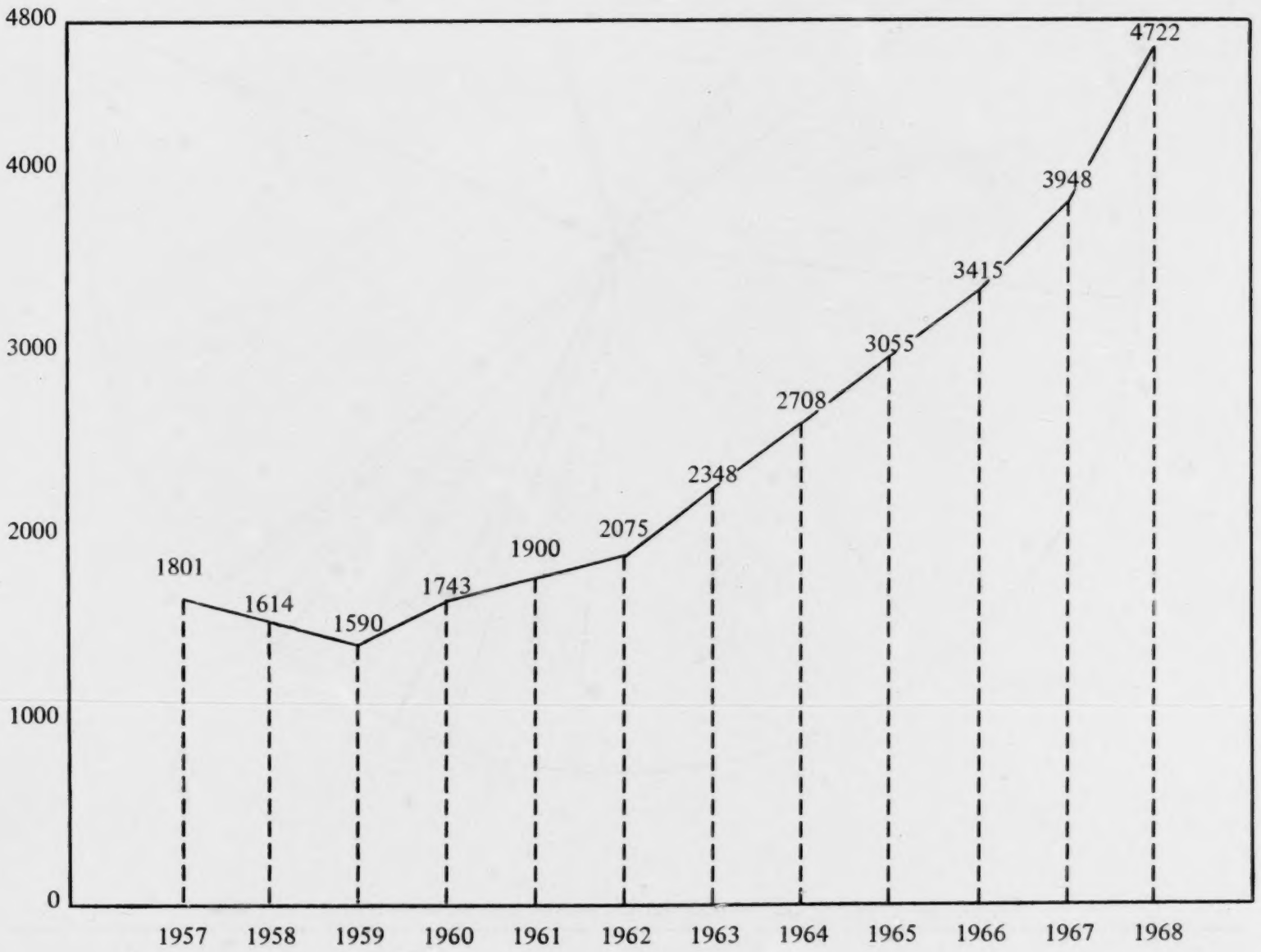

FIGURE I PRODUCTION OF DOCTORAL DEGREES IN EDUCATION, 1957-1969

SOURCE: See Appendix

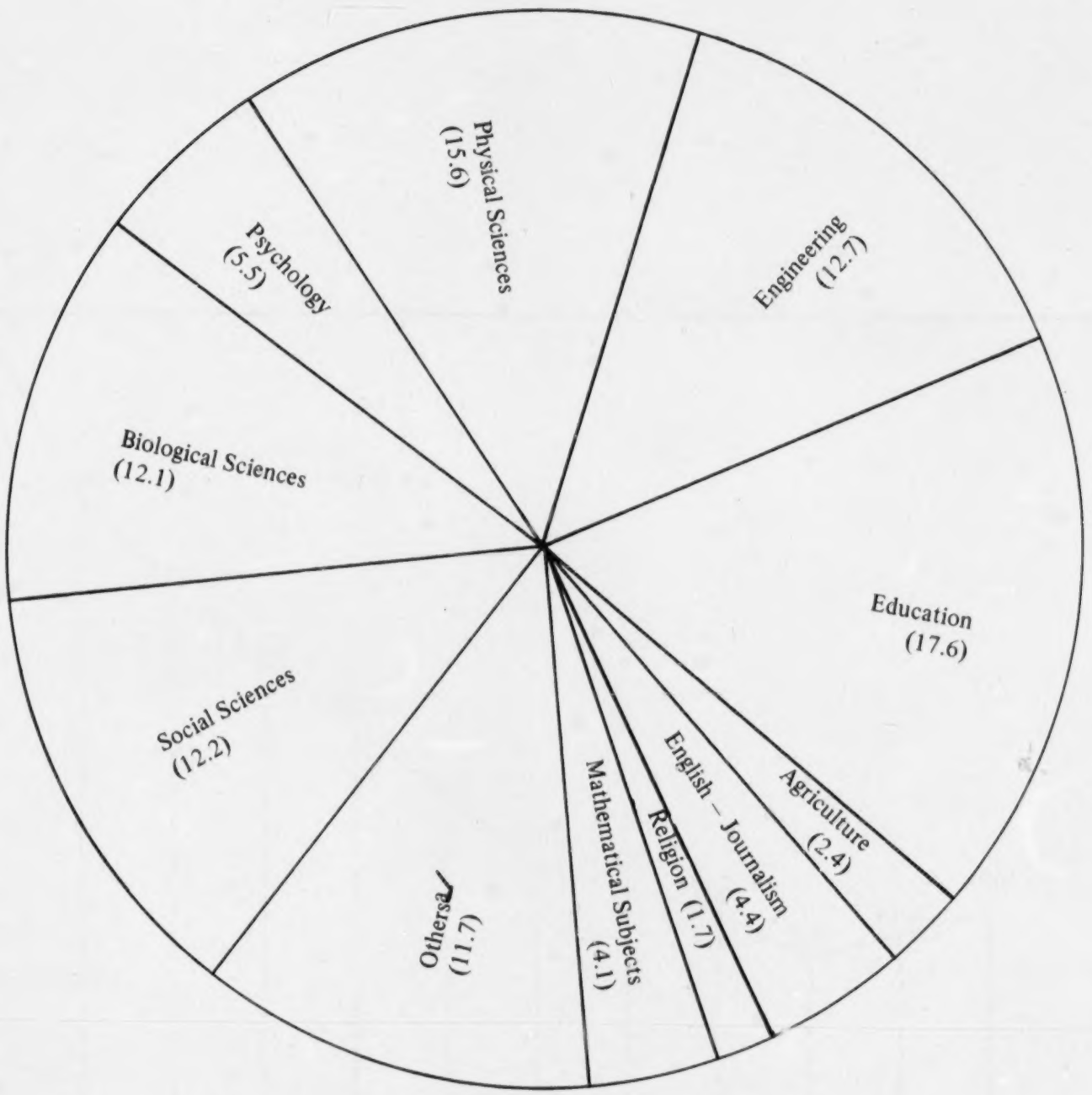

FIGURE II PERCENTAGE OF DOCTORAL PRODUCTION IN ALL FIELDS, 1967-68[a]

SOURCE: See Appendix

[a]The category *others* includes architecture (0.02), business and commercial (1.9), fine and applied arts (2.3), foreign language and literature 3.1), forestry (0.4), health professions (1.1), home economics (0.3), law (0.1), library science (0.1), philosophy (1.2), not classified (1.2).

TABLE 12

DOCTORAL PRODUCTION IN TOTAL GROUP BY TYPE OF INSTITUTION 1965-69

Year	Old Institutions				New Institutions				All Institutions				Total
	Public		Private		Public		Private		Public		Private		
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
1965-66	1945	63.7	933	30.5	112	3.7	65	2.1	2057	67.3	998	32.7	3055
1966-67	2174	63.7	971	28.4	191	5.6	79	2.3	2365	69.3	1050	30.7	3415
1967-68	2452	62.1	1081	27.4	298	7.5	117	3.0	2750	69.7	1198	30.3	3948
1968-69	2936	62.2	1202	25.4	440	9.3	144	3.1	3376	71.5	1346	28.5	4722
1965-69	9507	62.8	4187	27.6	1041	6.9	405	2.7	10548	69.7	4592	30.3	15140

was there a wide range in the actual numbers of graduates produced from institution to institution, but that fluctuations occurred within institutions from year to year. The institutions were ranked by production output over the four years, and their positions on the scale probably reflected the relative level of capacity of each school to turn out doctorate graduates in the field of professional Education. This information appears in Table 13. During the four-year period 1965-69, the average number of doctoral graduates produced by the Total Group was 31 per year per institution. Extremes for the period included Teachers College, Columbia University, which produced 909 graduates, while one institution produced only one graduate. One institution had no graduates for this period.[3]

Of the 124 institutions, 51 or 40.1 percent produced 100 graduates or more. Together these 51 institutions produced 11,608 graduates or 76.7 percent of the total.

Regional Production

The map in Figure III shows the state-by-state relationship between production and the number of institutions. Of the 15,140 graduates from the 124 institutions in the Total Group, 2,132 or 14.1 percent were produced in the state of New York. Although this percent represented a significant decrease from the 31.8 percent produced at the time of the AACTE study,[4] New York remained the largest single state producer. This apparent decline should be regarded rather as reflecting the expansion of degree programs in other institutions in other states. Furthermore, seven states or 13.7 percent failed to produce a single doctoral graduate in Education. These were states which had no institutions offering doctoral programs in this field.[5] A table showing degree production appears in the Appendix.

Production by region revealed the East North Central as the highest producing area with an output of 22.1 percent of the total graduates. Indiana University and Michigan State University contributed significantly to this total. The second largest region was the Middle Atlantic, which produced 19.7 percent of the graduates. New York State with Teachers College, Columbia University, and New York University had a strong influence upon the total graduates produced in this region. The New England region had the lowest percent of graduates (4.1 percent), but this was not unexpected as only two of the six states in the region had at least one institution offering a doctoral program in Education.

A feature of the regional picture was the production of doctoral degrees east and west of the Mississippi River. In the east, 60.6 percent of the degrees were produced while the complementary figure for the west was 39.4 percent. It was noted that this ratio of 3 to 2 stood up for both Old Institutions and New Institutions either side of the river.

Standing alone these percents had little relative meaning, but when compared with the picture prevailing at the time of the AACTE study several shifts were to be observed. The East North Central had superseded the Middle Altantic as the largest doctorate producing region. Both the New England and Pacific regions had lost some ground on a percent basis, whereas all other regions had moved upward. It should be stressed, however, that these shifts referred only to the *proportion* of total doctoral degrees in Education produced in the respective regions and *not* to the *number* of graduates. In the latter case, an increase for all regions was recorded. The above shifts in percent reflected not only the New Institutions with a large number of public institutions in Mid America, but also the large increase in doctoral programs at the Old Institutions.

[3]University of Wisconsin at Milwaukee had just started their program and expected their first doctorate in Education to be conferred in 1970 or 1971.

[4]Moore, Russel, and Ferguson. op. cit., p. 19.

[5]Alaska, Hawaii, Maine, Nevada, New Hampshire, Rhode Island, and Vermont.

TABLE 13

DOCTORAL PRODUCTION OF TOTAL GROUP BY INSTITUTIONS
1965-69

Institution	Number of Degrees				Total
	1965-66	1966-67	1967-68	1968-69	1965-69
Teachers College Columbia University	203	220	246	240	909
Indiana University	134	137	146	173	590
New York University	119	110	148	153	530
Michigan State University	101	101	126	143	471
Colorado State College	101	96	136	133	466
University of Wisconsin	80	91	101	103	375
University of Southern California	88	68	92	89	337
Ohio State University	58	73	77	96	304
University of California-Berkeley	70	71	66	85	292
Florida State University	56	62	85	79	282
University of California-Los Angeles	57	79	70	68	274
University of Nebraska	57	71	69	76	273
University of Minnesota	49	59	50	99	257
Pennsylvania State University	67	56	62	69	254
University of Illinois	56	69	59	70	254
University of Texas	47	69	58	58	232
Stanford University	53	70	57	47	227
University of Michigan	38	54	47	84	223
University of Iowa	38	59	50	69	216
University of Oregon	41	45	57	73	216
Wayne State University	43	43	51	70	207
Harvard University	46	46	55	59	206
Oklahoma State University	36	60	54	54	204
University of Missouri	46	35	56	57	194
Boston University	30	50	44	68	192
University of Oklahoma	40	58	39	54	191
University of Florida	30	44	44	68	186
Arizona State University	30	41	52	61	184
University of Georgia	37	53	46	46	182
Syracuse University	32	38	42	66	178
Temple University	32	39	45	50	166
University of Maryland	25	35	46	56	162
Rutgers University	38	38	48	31	155
University of Pittsburg	35	28	51	40	154
North Texas State University	26	32	34	61	153
University of Alabama	31	26	42	52	151
University of Arkansas	33	29	37	52	151
SUNY at Buffalo	23	24	30	64	141
University of Utah	16	29	42	53	140
University of Kansas	23	28	45	38	134
University of Wyoming	33	32	30	36	131
University of Tennessee	29	21	37	42	129
George Peabody Teachers College	44	20	31	33	128
Cornell University	19	39	28	35	121
University of Chicago	39	22	28	32	121

Table 13 (Continued)

Institution	Number of Degrees 1965-66	1966-67	1967-68	1968-69	Total 1965-69
Catholic University	20	25	26	49	120
University of Connecticut	31	35	21	33	120
Ball State University	9	20	31	52	112
University of Virginia	18	24	29	37	108
University of Southern Miss.	4	19	41	39	103
Northwestern University	25	25	22	29	101
Washington State University	25	20	26	28	99
East Texas State University	9	20	20	49	98
University of North Dakota	21	13	30	29	93
Case Western Reserve Univ.	25	13	19	34	91
Texas A & M	9	15	21	43	88
University of South Dakota	7	22	27	32	88
Purdue University	17	14	24	32	87
University of North Carolina	18	17	24	28	87
Washington University	14	16	26	28	84
University of Denver	17	27	16	24	84
University of Mississippi	10	11	31	31	83
University of Kentucky	18	20	24	20	82
University of New Mexico	12	14	19	35	80
Auburn University	18	15	23	22	78
St. Johns University	7	19	27	24	77
University of Colorado	20	17	16	23	76
Brigham Young Univeristy	16	11	23	25	75
St. Louis University	10	27	17	21	75
Utah State University	11	16	18	26	71
Southern Illinois University	13	15	21	21	70
University of Arizona	20	19	14	17	70
University of Houston	11	17	15	26	69
Louisiana State University	12	12	16	25	65
Fordham University	17	16	10	20	63
Duke University	15	12	19	16	62
Iowa State	13	13	12	24	62
University of Pennsylvania	18	13	18	13	62
University of Washington	9	11	16	24	60
University of Rochester	7	6	13	31	57
Claremont Grad School	19	10	10	11	50
Kent State University	18	12	9	10	49
Ohio University	3	10	13	23	49
West Virginia University	8	8	14	17	47
Boston College	11	9	11	15	46
Northern Illinois University	7	8	18	13	46
Oregon State	9	10	13	13	45
University of Idaho	8	5	11	21	45
Texas Woman's University	5	5	4	30	44
University of Tulsa	7	7	12	18	44
American University	6	13	13	10	42
University of Cincinnati	10	10	13	7	40
Lehigh University	7	8	6	17	38
University of Toledo	5	9	14	10	38
University of Miami	3	8	11	15	37
SUNY at Albany	7	7	8	14	36

Table 13 (Continued)

Institution	Number of Degrees 1965-66	1966-67	1967-68	1968-69	Total 1965-69
Illinois State University	3	10	12	10	35
New Mexico State University	0	1	8	26	35
Loyola University	7	6	13	8	34
Texas Tech.	7	4	9	9	29
Baylor University	5	11	7	5	28
University of Montana	1	11	10	5	27
Springfield College	4	9	5	8	26
University of Massachusetts	2	4	10	8	24
Marquette University	1	5	6	9	21
University of South Carolina	3	2	4	12	21
North Carolina State	0	0	1	19	20
U.S. International University	0	1	19	0	20
Yeshiva University	4	3	2	11	20
Washington University	6	4	5	4	19
University of the Pacific	4	3	6	4	17
Dropsie College	4	4	4	4	16
Montana State	6	2	3	5	16
Mississippi State	0	1	7	6	14
Notre Dame University	2	6	1	4	13
Johns Hopkins University	2	2	5	3	12
Indiana State	0	3	3	5	11
University of Delaware	0	2	4	4	10
Memphis State	0	0	3	6	9
Colorado State University	0	0	4	4	8
University of Missouri-Kansas City	3	1	1	3	8
Bryn Mawr College	3	2	2	0	7
Miami University	0	0	0	1	1
University of Wisconsin-Milwaukee	0	0	0	0	0
Totals	3055	3415	3948	4722	15140

Note: Numbers no in parenthesis indicate graduates
Numbers in parenthesis indicate number of institutions granting doctoral degrees in Education.

FIGURE III LOCATION OF DOCTORAL GRADUATES BY STATES, 1965-1969

As revealed in Table 14, a decrease in the percent of degrees granted east of the Mississippi River and a corresponding increase in the percent west of the Mississippi was a distinct point of change between the AACTE study and the current survey. Whereas in 1956-58, the ratio in favor of the east stood at 2 to 1 it had now eased to a 3 to 2 margin. Nevertheless, the earlier schools still dominated in doctoral production in Education.

TABLE 14

A COMPARISON OF REGIONAL DOCTORAL PRODUCTION IN THE 1956-58 AACTE STUDY AND IN THE CURRENT STUDY

Region	AACTE Study Percent [a]	Current Study Percent
New England	5.0	4.1
Middle Atlantic	36.1	19.7
East North Central	18.8	22.1
West North Central	8.4	9.4
South Atlantic	4.5	9.7
East South Central	4.2	5.1
West South Central	5.9	9.2
Mountain	5.1	9.9
Pacific	12.0	10.8
Total	100.0	100.0
East of the Mississippi River	68.9	60.6
West of the Mississippi River	31.1	39.4
Total	100.0	100.0

[a]Vol. 2 P. 17.

THE PARTICIPATING GROUP DOCTORAL PRODUCTION

During the four-year period, the 113 institutions produced a total of 14,256 doctorates in Education. Of these, 13,085 or 91.8 percent were produced by the Old Institutions, and 1,171 or 8.2 percent were produced by the New Institutions. A particularly significant trend during this period was the steady advance in the percent of doctorates produced by the New Institutions each year, thereby demonstrating their increasing influence. This information was presented in Table 15.

TABLE 15

DOCTORAL PRODUCTION OF PARTICIPATING GROUP, 1965-1969

Year	Old Institutions No.	%	New Institutions No.	%	All Institutions No.	%
1965-66	2759	95.3	137	4.7	2896	100.0
1966-67	3023	93.4	215	6.6	3238	100.0
1967-68	3412	90.9	341	9.1	3753	100.0
1968-69	3891	89.1	478	10.9	4369	100.0
1965-69	13085	91.8	1171	8.2	14256	100.0

The trends noted among the Total Group with regard to doctoral production at the public and private institutions were paralleled among the Participating Group. The public institutions produced about 70 percent of the doctorates conferred while the private share was about 30 percent. Again it was confirmed that the influence of the Old Institutions on doctoral production was lessening and this applied to both public and private institutions. Within the New Institutions, public institutions outscored private institutions in doctoral production at the ratio of 5 to 2 whereas at the Old Institutions the respective proportions stood close to a 2 to 1 margin. Table 16 indicates this information.

TABLE 16

DOCTORAL PRODUCTION BY TYPE OF INSTITUTION, PARTICIPATING GROUP 1965-69

Year	Old Institutions Public No.	%	Old Institutions Private No.	%	New Institutions Public No.	%	New Institutions Private No.	%	All Institutions Public No.	%	All Institutions Private No.	%	Total
1965-66	1825	63.0	934	31.6	101	3.5	36	1.2	1926	66.5	970	33.5	2896
1966-67	2044	63.1	979	30.2	167	5.2	48	1.5	2211	68.3	1027	31.7	3238
1967-68	2329	62.1	1083	28.9	268	7.1	73	1.9	2597	69.2	1156	30.8	3753
1968-69	2688	61.5	1203	27.5	383	8.8	95	2.2	3071	70.3	1298	20.7	4369
1965-69	8886	62.3	4199	29.4	919	6.5	252	1.8	9805	68.8	4451	31.2	14256

During the study period 1965-69, the participating institutions produced more Ed.D. degrees than Ph.D. There were 5,469 Ph.D.'s or 38.4 percent; and 8,761 Ed.D.'s or 61.4 percent. This represented a ratio of about 5 to 8. Each year the number of Ed.D. degrees conferred exceeded the Ph.D., but it was noted that the latter had made a perceptible advance in the percent of doctoral degrees in Education awarded. Table 17 also confirmed the increasing role of the New Institutions in degree output for both the Ed.D. and the Ph.D. degree.

Production by Degrees Granted

Of the 113 institutions, 49 or 43.4 percent produced 100 or more graduates during the four-year period. Together these institutions produced 11,179 or 78.4 percent of the total 14,256 graduates.

As shown in Table 18, the 113 participating institutions were ranked on the basis of total doctorates produced for the four-year period 1965-69. Had there been a ranking for each of the four years, there would have been fluctuations in the relative ranking positions from year to year. Another facet of the table was the breakdown by degree type for each institution. Had ranking been made in terms of degree type, a number of major shifts in ordering would be immediately evident. For example, if the Ed.D. degrees were ranked, Teachers College, Columbia University, would still be the largest producer with 8.4 percent of the total Ed.D. degrees (Teachers College, Columbia University, produced 6.4 percent of the total degrees). If the Ph.D. degrees were ranked, however, the largest producer would be New York University with 7.0 percent of the total.

Production by Areas of Concentration

Whereas 59 areas of concentration were listed in the AACTE study, these were condensed to 30 for use in the Current Study. Included in the questionnaire was a grid on which the respondents were asked to indicate the number of Ph.D.'s and the number of Ed.D.'s conferred in each of the four years under investigation for each of the areas of concentration offered at the institution. Although this item specifically inquired about the two degrees, those institutions which offered other degrees such as Springfield College, indicated the areas to which their degrees applied.

Two of the participating institutions did not respond to this item in the questionnaire but they did report total doctorates conferred.[6] Although these institutions did confer 137 doctorates during the period 1965-69, this amounted to less than one percent of the 14,256 graduates produced by the Participating Group. Thus, the total picture was not appreciably affected. As determined from data of doctorates conferred by areas of concentration, there was a total of 14,140. When this was compared with 14,256 doctorates conferred by the Participating Group, a difference of 116 was noted – this amounted to an approximate difference of about 0.81 percent. There were a number of discrepancies noted between the total degrees conferred by an institution and the number claimed by individual degrees within given areas of concentration. In several instances, the differences were extremely slight, being of the order of only one or two. In a few institutions, however, the discrepancy was so great that a simple explanation was not possible. These differences moved in both directions. In some cases, the institutional totals from the grid of areas of concentration were larger; while in other

TABLE 17

DOCTORAL PRODUCTION OF PARTICIPATING GROUP,
BY DEGREE TYPE 1965-69

Year	Old Institutions						New Institutions						All Institutions							
	No. Ph.D.	%	No. Ed.D.	%	No. Other	%	No. Ph.D.	%	No. Ed.D.	%	No. Other	%	No. Ph.D.	%	No. Ed.D.	%	No. Other	%	Total Deg.	%
1965-66	966	33.4	1793	61.9	–	–	56	1.9	77	2.7	4	0.1	1022	35.3	1870	64.6	4	0.1	2896	100.0
1966-67	1159	35.8	1864	57.5	–	–	78	2.4	128	4.0	9	0.3	1237	38.2	1992	61.5	9	0.3	3238	100.0
1967-68	1293	34.4	2119	56.5	–	–	130	3.5	206	5.5	5	0.1	1423	37.9	2325	62.0	5	0.1	3753	100.0
1968-69	1640	37.5	2251	51.5	–	–	147	3.4	323	7.4	8	0.2	1787	40.9	2574	58.9	8	0.2	4369	100.0
1965-69	5058	35.5	8027	56.3	–	–	411	2.9	734	5.1	26	0.2	5469	38.4	8761	61.4	26	0.2	14256	100.0

[6]St. John's University and University of Washington.

TABLE 18

DOCTORAL PRODUCTION OF PARTICIPATING GROUP,
BY INSTITUTION 1965-69

Institution	1965-66				1966-67				1967-68				1968-69				1965-69			
	Ph.D.	Ed.D.	Other	Total	Ph.D.	Ed.D.	Other	Total	Ph.D.	Ed.D.	Other	Total	Ph.D.	Ed.D.	Other	Total	Ph.D.	Ed.D.	Other	Total
Teachers College Columbia University	23	180		203	53	167		220	44	202		246	53	187		240	173	736		909
Indiana University	21	113		134	20	117		137	29	117		146	24	149		173	94	496		590
New York University	82	37		119	77	33		110	113	35		148	110	43		153	382	148		530
Michigan State University	69	32		101	62	39		101	86	40		126	107	36		143	324	147		471
Colorado State College	3	98		101	7	89		96	16	120		136	8	125		133	34	432		466
University of Wisconsin	80			80	91			91	101			101	103			103	375			375
University of Southern California		88		88		68		68		92		92		89		89		337		337
Minnesota University	62			62	69			69	91	1		92	92	9		101	314	10		324
Ohio State University	58			58	73			73	77			77	96			96	304			304
University of California-Berkeley	18	52		70	23	48		71	24	42		66	35	50		85	100	192		292
University of California-Los Angeles	1	56		57	1	78		79	8	62		70	15	53		68	25	249		274
Nebraska University	8	48		56	10	58		68	7	69		76	13	53		66	38	228		266
Pennsylvania State University	5	62		67	5	51		56	9	53		62	10	59		69	29	225		254
University of Illinois	25	31		56	28	41		69	28	31		59	27	43		70	108	146		254
University of Texas	36	11		47	64	5		69	50	8		58	53	5		58	203	29		232
Stanford University	20	33		53	32	38		70	35	22		57	33	14		47	120	107		227
University of Michigan	37	1		38	53	1		54	44	3		47	81	3		84	215	8		223
University of Iowa	38			38	59			59	50			50	69			69	216			216
University of Oregon	13	28		41	9	36		45	16	41		57	43	30		73	81	135		216
Harvard University	2	44		46	2	44		46	2	53		55	4	55		59	10	196		206
Oklahoma State University		36		36		60		60		54		54		54		54		204		204
University of Missouri	12	34		46	7	28		35	5	51		56	12	45		57	36	158		194
Boston University		30		30		50		50		44		44		68		68		192		192
University of Oklahoma	18	22		40	30	28		58	14	25		39	20	34		54	82	109		191
University of Florida		30		30		44		44		44		44	2	66		68	2	184		186
Arizona State	6	24		30	8	33		41	9	43		52	21	40		61	44	140		184
University of Georgia		37		37		53		53		46		46	5	41		46	5	177		182
Syracuse University	13	19		32	18	20		38	22	20		42	47	19		66	100	78		178
Temple University		32		32		39		39		45		45		50		50		166		166
University of Maryland	5	20		25	15	20		35	17	29		46	15	41		56	52	110		162
Rutgers University		38		38		38		38		48		48		31		31		155		155
University of Pittsburg	11	24		35	13	15		28	31	20		51	26	14		40	81	73		154
North Texas State		26		26		32		32		34		34	5	56		61	5	148		153
University of Alabama	9	22		31	8	18		26	12	30		42	19	33		52	48	103		151
University of Arkansas		33		33		29		29		37		37		52		52		151		151
SUNY at Buffalo	2	21		23		24		24	4	26		30	12	52		64	18	123		141
University of Utah	6	10		16	13	16		29	22	20		42	39	14		53	80	60		140
University of Kansas	2	21		23	9	19		28	13	32		45	11	27		38	35	99		134
University of Wyoming	3	30		33	6	26		32	8	22		30	11	25		36	28	103		131

University of Tennessee		29	29		21	21		37	37		42	42		129	129
George Peabody College	15	29	44	4	16	20	9	22	31	14	19	33	42	86	128
Cornell University	13	6	19	25	14	39	16	12	28	27	8	35	81	40	121
University of Chicago	39		39	22		22	28		28	32		32	121		121
Catholic University	20		20	25		25	26		26	49		49	120		120
University of Connecticut	31		31	35		35	21		21	33		33	120		120
Ball State University	3	6	9	5	15	20	3	28	31	4	48	52	15	97	112
University of Virginia		18	18	1	23	24		29	29		37	37	1	107	108
University of Southern Mississippi	1	3	4	4	15	19	11	30	41	11	28	39	27	76	103
Northwestern University	25		25	25		25	22		22	29		29	101		101
Washington State University	5	20	25	4	16	20	4	22	26	5	23	28	18	81	99
University of North Dakota	2	19	21	3	10	13	9	21	30	9	20	29	23	70	93
Case Western Reserve University	8	17	25	5	8	13	9	10	19	25	9	34	47	44	91
Texas A&M University	1	8	9	5	10	15	12	9	21	23	20	43	41	47	88
University of South Dakota		7	7		22	22		27	27		32	32		88	88
Purdue University	17		17	14		14	24		24	32		32	87		87
University of North Carolina	9	9	18	13	4	17	17	7	24	19	9	28	58	29	87
George Washington University		14	14		16	16		26	26		28	28		84	84
University of Denver	4	13	17	9	18	27	6	10	16	14	10	24	33	51	84
University of Mississippi	3	7	10	2	9	11	4	27	31	3	28	31	12	71	83
University of Kentucky	3	15	18	5	15	20	7	17	24	3	17	20	18	64	82
University of New Mexico	5	7	12	1	13	14	12	7	19	9	26	35	27	53	80
Auburn University		18	18		15	15		23	23		22	22		78	78
St. Johns University	6	1	7	12	7	19	18	9	27	20	4	24	56	21	77
University of Colorado	4	16	20	4	13	17	6	10	16	12	11	23	26	50	76
St. Louis University	10		10	27		27	17		17	21		21	75		75
Utah State University	1	10	11		16	16	5	13	18	4	22	26	10	61	71
Southern Illinois University	13		13	15		15	21		21	21		21	70		70
University of Arizona	4	16	20	6	13	19	4	10	14	4	13	17	18	52	70
University of Houston		11	11		17	17		15	15		26	26		69	69
Fordham University	17		17	16		16	10		10	20		20	63		63
Duke University		15	15		12	12		19	19	1	16	17	1	62	63
University of Pennsylvania	3	15	18	2	11	13	4	14	18	1	12	13	10	52	62
University of Washington	5	4	9	5	6	11	7	9	16	7	17	24	24	36	60
University of Rochester		7	7		6	6		13	13		31	31		57	57
Clarmont Graduate School	19		19	10		10	10		10	11		11	50		50
Kent State University	18		18	12		12	9		9	10		10	49		49
Ohio University	3		3	10		10	13		13	23		23	49		49
West Virginia University		8	8		8	8		14	14		17	17		47	47
Boston College	5	6	11	5	4	9	9	2	11	14	1	15	33	13	46
Northen Illinois University		7	7		8	8		18	18		13	13		46	46
Oregon State University	2	7	9	1	9	10	4	9	13	4	9	13	11	34	45
University of Idaho		8	8		5	5		11	11	1	20	21	1	44	45
University of Tulsa		7	7		7	7		12	12		18	18		44	44
University of Cincinnati		10	10		10	10		13	13		7	7		40	40
Lehigh University		7	7		8	8		6	6		17	17		38	38
University of Toledo		5	5	5	4	9	5	9	14	6	4	10	16	22	38

Table 18 (Continued)

Institution	1965-66				1966-67				1967-68				1968-69				1965-69			
	Ph.D.	Ed.D.	Other	Total	Ph.D.	Ed.D.	Other	Total	Ph.D.	Ed.D.	Other	Total	Ph.D.	Ed.D.	Other	Total	Ph.D.	Ed.D.	Other	Total
University of Miami		3		3	2	6		8	1	10		11	4	11		15	7	30		37
Illinois State University		3		3	1	9		10		12		12	1	9		10	2	33		35
New Mexico State						1		1		8		8		26		26		35		35
Loyola University	3	4		7	1	5		6	6	7		13	2	6		8	12	22		34
Yeshiva University	2	3		5	7	4		11	1	3		4	6	5		11	16	15		31
Texas Tech.		7		7		4		4		9		9		9		9		29		29
Baylor University		5		5		11		11		7		7		5		5		28		28
University of Montana		1		1		11		11		10		10		5		5		27		27
Springfield College			4	4			9	9			5	5			8	8			26	26
Marquette University	1			1	4	1		5	1	5		6	3	6		9	9	12		21
North Carolina State										1		1		19		19		20		20
U.S. International University					1			1	19			19					20			20
Washington University	1	5		6	1	3		4	4	1		5	3	1		4	9	10		19
University of the Pacific		4		4		3		3		6		6		4		4		17		17
Dropsie College	2	2		4	2	2		4	2	2		4	2	2		4	8	8		16
Montana State University	1	5		6		2		2		3		3		5		5	1	15		16
Mississippi State University						1		1		7		7		6		6		14		14
Notre Dame	2			2	6			6	1			1	4			4	13			13
Johns Hopkins University	2			2	2			2	5			5	3			3	12			12
Indiana State					3			3	3			3	5			5	11			11
University of Delaware					2			2	4			4	4			4	10			10
Memphis State										3		3		6		6		9		9
Colorado State University									4			4	4			4	8			8
University of Missouri-Kansas City	3			3	1			1	1			1	3			3	8			8
Bryn Mawr University	3			3	2			2	2			2					7			7
Miami University													1			1	1			1
University of Wisconsin-Milwaukee																				
Totals	1022	1870	4	2896	1237	1992	9	3238	1423	2325	5	3753	1786	2574	8	4368	5469	8761	26	14256

cases, the total of degrees conferred, as reported in Table 18, were larger. The information pertaining to areas of concentration was based upon the actual responses on the questionnaire. In any event, it was concluded that an analysis of the data on doctorates conferred by area of concentration would give a relatively accurate picture of this facet of doctoral production in Education.

Table 19 shows the degree production for each of the 30 areas of concentration for each year of the Current Study and for the four-year period 1965-69. Output by each degree type was given and this included a breakdown for the Old Institutions and the New Institutions, as well as for All Institutions.

Among the 30 areas of concentration reported, school administration ranked first with 3,095 or 21.0 percent of the graduates. Counseling and guidance ranked second with 1,617 graduates or 11.3 percent, and third place was educational psychology with 1,519 graduates or 10.6 percent. Each of the above figures referred to doctoral production by all participating institutions by area of concentration for the four-year period 1965-69.

Of the 30 areas listed, more Ph.D. degrees were awarded in eight fields and more Ed.D. degrees were granted in the remaining 22 fields. It should be noted, however, that no distinct differentiation as to subject matter was established as pointing to differences between the two degrees. In fact, both degrees were conferred in all 30 areas of concentration. The Current Study supported the view that there appeared to be no general practice of reserving certain areas for one degree. The purposes and functions of the two degrees were perceived as being similar in nature.

As shown in Table 20, school administration was not only the area in which the largest number of degrees was conferred, but it was the area of concentration offered by most institutions. Sixty institutions offered the Ph.D. degree in this area while the number of Ed.D. programs for this concentration was 81. Fifty-six institutions offered the Ph.D. in counseling and guidance, the number for Ed.D. programs in this area of concentration being 64. Ph.D. degrees in educational psychology were offered by 55 institutions while Ed.D. programs for this concentration stood at 43. Not included in this table was the Doctor of Physical Education degree awarded by Springfield College, Massachusetts. Twenty-six doctorates were awarded in this area during the period of the Current Study.

Summary

The Total Group in the Current Study was composed of 124 institutions of which 89 were in the AACTE Study and 35 who had started their doctoral programs in Education since then. In addition, 84 were publicly controlled and 40 were privately controlled.

The Total Group produced 15,140 doctorates in the four-year period 1965-69. Of this number, 13,694 were produced by the Old Institutions and 1,446 by the New Institutions. In addition, 10,548 were produced by public institutions and 4,592 by private institutions.

Of the 124 institutions in the Total Group, 113 responded to the questionnaire. Of the 113 institutions in the Participating Group, 83 were in the AACTE Study and 30 were New Institutions. There were 74 public and 39 private institutions in the Participating Group.

The Participating Group produced 14,256 doctorates in the period 1965-69. Of this number, 13,085 were produced by the Old Institutions and 1,171 by the New Institutions. In addition, 9,805 were produced by public institutions and 4,357 by private institutions. Finally, there were 5,469 Ph.D. degrees conferred and 8,761 Ed.D. conferred. There were 26 doctorates of a different type conferred.

There were 89 Ph.D. and 90 Ed.D. programs at 112 of the 113 institutions in the Participating Group. One institution had a different type of degree program.

Most of the Ph.D. programs (47) were controlled by the Graduate School, with dual control and College of Education control following in that order. Most of the Ed.D. programs (35) were under dual control, with control by the Graduate School and College of Education following in that order.

Of the 14,256 graduates from the 113 institutions in the Participating Group, the largest number was produced in the state of New York. The largest number of graduates was produced in the East North Central region, and more degrees were produced east of the Mississippi River than west by a ratio of about 3 to 2.

Of the 179 Ph.D. and Ed.D. programs at the 113 institutions, 141 produced 3,095 graduates in the area of school administration, while 13 programs produced 56 graduates in the area of speech education. Five areas produced more than one-half of all the graduates. These areas were school administration, guidance and counseling, educational psychology, higher education, and elementary education.

While there was some differentiation between the Ph.D. and the Ed.D. with regard to the manner in which the areas of concentration were perceived, the data did not reveal as much differentiation between the two degrees as might have been expected from the traditional statements of purposes of the degrees. As indicated, the purposes and function of the two degrees were apparently perceived as being similar in nature.

TABLE 19

DEGREE PRODUCTION BY AREA OF CONCENTRATION

Area of Concentration	Old Institutions 1965-66 Ph.D.	Ed.D.	Other	Total	1966-67 Ph.D.	Ed.D.	Other	Total	1967-68 Ph.D.	Ed.D.	Other	Total	1968-69 Ph.D.	Ed.D.	Other	Total	1965-69 Ph.D.	Ed.D.	Other	Total
School Administration	148	477		625	167	552		719	156	528		684	232	540		772	703	2097		2800
Guidance and Counseling	119	182		301	129	191		320	169	193		362	207	212		419	624	778		1402
Educational Psychology	146	141		287	215	150		365	198	126		324	332	155		487	891	572		1463
Higher Education	61	101		162	73	114		187	81	139		220	126	164		290	341	518		859
Elementary Education	39	69		108	60	125		185	36	136		172	52	120		172	187	450		637
General Curriculum	53	75		128	45	94		139	51	105		156	87	117		204	236	391		627
Secondary Education	29	112		141	41	129		170	35	130		165	36	127		163	141	498		639
Special Education	40	53		93	48	81		129	54	91		145	81	102		183	223	327		550
History and Philosophy of Education	68	43		111	72	46		118	86	65		151	86	61		147	312	215		527
Physical and Health Education	43	50		93	37	56		93	42	92		134	40	92		132	162	290		452
Science Education	37	34		71	30	51		81	57	58		115	49	74		123	173	217		390
Vocational Education	14	35		49	14	29		43	13	38		51	21	51		72	62	153		215
Mathematics Education	13	14		27	27	21		48	28	28		56	48	35		83	116	98		214
Business Education	10	27		37	10	44		54	17	30		47	2	47		68	58	148		206
Reading	16	19		35	20	29		49	20	31		51	25	46		71	81	125		206
Teacher Education	5	48		53	9	27		36	11	44		55	15	27		42	40	146		186
Educational Measurements and Statistics	18	14		32	31	13		44	33	13		46	52	21		73	134	61		195
Adult Education	34	17		51	18	17		35	19	21		40	22	23		45	93	78		171
Social Science Education	23	13		36	26	10		36	27	18		45	24	21		45	100	62		162
English Education	15	24		39	20	19		39	15	24		39	20	27		47	70	94		164
Music Education		23		23	3	34		37	6	34		40	9	36		45	18	127		145
Audio-Visual Education	12	12		24	10	17		27	16	18		34	17	40		57	55	87		142
Education – General	6	37		43	4	13		17	13	22		35	9	20		29	32	92		124
Foreign Language Education	4	13		17	10	29		39	11	14		25	13	19		32	38	75		113
Art Education	4	13		17	4	23		27	13	22		35	7	20		27	28	78		106
Agriculture Education	9	14		23	11	7		18	8	7		15	14	13		27	42	41		83
Nursing Education	1	11		12	5	13		18	6	13		19	2	30		32	14	67		81
Religious Education	9	7		16	10	6		16	11	11		22	8	3		11	38	27		65
Home Economics Education	5	7		12	3	5		8	10	7		17	15	9		24	33	28		61
Speech Education	7	6		13	15	5		20	7	4		11	7	5		12	36	20		56
Other	7			7	5			5	8			8	8			8	28			28

Table 19 (Continued)

Area of Concentration	New Institutions 1965-66 Ph.D.	Ed.D.	Other	Total	1966-67 Ph.D.	Ed.D.	Other	Total	1967-68 Ph.D.	Ed.D.	Other	Total	1968-69 Ph.D.	Ed.D.	Other	Total	1965-69 Ph.D.	Ed.D.	Other	Total
School Administration	8	22		30	14	38		52	23	70		93	22	98		120	67	228		295
Guidance and Counseling	13	19		32	21	17		38	24	37		61	34	50		84	92	123		215
Educational Psychology	4	1		5	6	3		9	12	6		18	10	14		24	32	24		56
Higher Education	5			5	5	1		6	5			5	7	4		11	22	5		27
Elementary Education	6	13		19	12	25		37	11	33		44	14	37		51	43	108		151
General Curriculum	13	6		19	8	7		15	24	10		34	16	32		48	61	55		116
Secondary Education	2	1		3	4	10		14	7	13		20	5	22		27	18	46		64
Special Education	1			1	2			2	1			1	1			1	5			5
History and Philosophy of Education						2		2	4	4		8	7	3		10	11	9		20
Physical and Health Education		1	4	5		3	9	12		5	5	10	3	8	8	19	3	17	26	46
Science Education									2	3		5		3		3	2	6		8
Vocational Education		8		8		10		10	4	9		13	4	22		26	8	49		57
Mathematics Education					1			1	3			3	2			2	6			6
Business Education		4		4		2		2	1	2		3		4		4	1	12		13
Reading					2	5		7	3			3	3			3	8	5		13
Teacher Education		4		4		3		3	1	6		7	1	3		4	2	16		18
Educational Measurements and Statistics									1			1	4	3		7	5	3		8
Adult Education										1		1		16		16		17		17
Social Science Education	3	1		4	3	2		5	3	5		8	4	4		8	13	12		25
English Education													1			1	1			1
Music Education																				
Audio-Visual Education																				
Education – General	1			1					1			1					2			2
Foreign Language Education													2			2	2			2
Art Education		1		1		2		2		2		2		3		3		8		8
Agriculture Education													7	1		8	7	1		8
Nursing Education																				
Religious Education																				
Home Economics Education																				
Speech Education																				

Table 19 (Continued)

Area of Concentration	All Institutions 1965-66 Ph.D.	Ed.D.	Other	Total	1966-67 Ph.D.	Ed.D.	Other	Total	1967-68 Ph.D.	Ed.D.	Other	Total	1968-69 Ph.D.	Ed.D.	Other	Total	1965-69 Ph.D.	Ed.D.	Other	Total	Pct. Total
School Administration	156	499		655	181	590		771	179	598		777	254	638		892	770	2325		3095	21.0
Guidance and Counseling	132	201		333	150	208		358	193	230		423	241	262		503	716	901		1617	11.3
Educational Psychology	150	142		292	221	153		374	210	132		342	342	169		511	923	596		1519	10.6
Higher Education	66	101		167	78	115		193	86	139		225	133	168		301	363	523		886	6.2
Elementary Education	45	82		127	72	150		222	47	169		216	66	157		223	230	558		788	5.5
General Curriculum	66	81		147	53	101		154	75	115		190	103	149		252	297	446		743	5.2
Secondary Education	31	113		144	45	139		184	42	143		185	41	149		190	159	544		703	4.9
Special Education	41	53		94	50	81		131	55	91		146	82	102		184	228	327		555	3.9
History and Philosophy of Education	68	43		111	72	48		120	90	69		159	93	64		157	323	224		547	3.8
Physical and Health Education	43	51	4	98	37	59	9	105	42	97	5	144	43	100	8	151	165	307	26	498	3.5
Science Education	37	34		71	30	51		81	59	61		120	49	77		126	175	223		398	2.8
Vocational Education	14	43		57	14	39		53	17	47		64	25	73		98	70	202		272	1.9
Mathematics Education	13	14		27	28	21		49	31	28		59	50	35		85	122	98		220	1.5
Business Education	10	31		41	10	46		56	18	32		50	21	51		72	59	160		219	1.5
Reading	16	19		35	22	34		56	23	31		54	28	46		74	89	130		219	1.5
Teacher Education	5	52		57	9	30		39	12	50		62	16	30		46	42	162		204	1.4
Educational Measurements and Statistics	18	14		32	31	13		44	34	13		47	56	24		80	139	64		203	1.4
Adult Education	34	17		51	18	17		35	19	22		41	22	39		61	93	95		188	1.3
Social Science Education	26	14		40	29	12		41	30	23		53	28	25		53	113	74		187	1.3
English Education	15	24		39	20	19		39	15	24		39	21	27		48	71	94		165	1.2
Music Education		23		23	3	34		37	6	34		40	9	36		45	18	127		145	1.0
Audio-Visual Education	12	12		24	10	17		27	16	18		34	17	40		57	55	87		142	1.0
Education – General	7	37		44	4	13		17	14	22		36	9	20		29	34	92		126	0.9
Foreign Language Education	4	13		17	10	29		39	11	14		25	15	19		34	40	75		115	0.8
Art Education	4	14		18	4	25		29	13	24		37	7	23		30	28	86		114	0.8
Agriculture Education	9	14		23	11	7		18	8	7		15	21	14		35	49	42		91	0.6
Nursing Education	1	11		12	5	13		18	6	13		19	2	30		32	14	67		81	0.6
Religious Education	9	7		16	10	6		16	11	11		22	8	3		11	38	27		65	0.5
Home Economics Education	5	7		12	3	5		8	10	7		17	15	9		24	33	28		61	0.4
Speech Education	7	6		13	15	5		20	7	4		11	7	5		12	36	20		56	0.4
Other	7			7	5			5	8			8	8			8	28			28	0.2

TABLE 20

AREAS OF CONCENTRATION BY DEGREE GRANTED
AND NUMBER OF INSTITUTIONS

Area of Concentration	Total Ph.D. Degrees	Number of Institutions Granting Ph.D. In Area	Total Ed.D. Degrees	Number of Institutions Granting Ed.D. in Area	Total Number of Graduates, Both Degrees
School Administration	770	60	2325	81	3095
Guidance and Counseling	716	56	901	64	1617
Educational Psychology	823	55	596	43	1419
Higher Education	363	32	523	27	886
Elementary Education	230	36	558	54	778
General Curriculum	297	34	446	44	743
Secondary Education	159	24	544	42	703
History and Philosophy of Education	323	44	224	32	547
Special Education	228	29	327	30	555
Physical and Health Education	165	13	307	27	462
Science Education	175	20	223	25	398
Vocational Education	70	12	202	17	272
Math Education	122	17	98	18	220
Business Education	59	11	160	24	219
Teacher Education	42	10	162	19	204
Educational Measurements and Statistics	139	27	64	17	203
Reading	89	13	130	23	219
Adult Education	93	10	95	15	188
Social Science Education	113	12	74	16	187
English Education	71	15	94	10	165
Audio-Visual Education	55	7	87	12	142
Music Education	18	6	127	14	145
Education–General	34	9	92	9	126
Art Education	28	6	86	9	114
Foreign Language Education	40	9	75	7	115
Agriculture Education	49	7	42	8	91
Nursing Education	14	1	67	4	81
Religious Education	38	3	27	5	65
Home Economics Education	33	8	28	6	61
Speech Education	36	7	20	6	56

CHAPTER IV

ADMISSION REQUIREMENTS

Doctoral work is a distinct and separate entity within graduate education. The doctorate in the field of Education is no exception to this.

This chapter, as did its counterpart in the AACTE study, deals with a group of requirements that characterize doctoral admission policies and procedures. In this chapter, the term *admissions* is not used to refer to the establishment of candidacy; it is applied only to *entrance into the program or admission to study*.

By way of review, a few statistics should be kept in mind. There were 113 institutions in the Participating Group, of which 83 were Old Institutions and 30 were New Institutions. The data presented in this chapter are based upon the responses of this particular group.

Data, relative to credit hours, are reported both in this chapter and throughout the study in terms of *semester* hours. This choice was made since about 70 percent of the participating institutions used this system.

PREVIOUS DEGREES

The Bachelor's Degree

The questionnaire inquired if admission to the doctoral program was contingent upon the applicant having earned a bachelor's or baccalaureate degree. Table 21 showed that 106 institutions or 93.8 percent of all participating institutions made this requirement. Among the Old Institutions, 79 or 95.2 percent required an earned bachelor's degree as a prerequisite for doctoral study in Education, while the percent figure for New Institutions was only slightly lower at 90.0 percent.

On the basis of these data, only four institutions indicated definitely that they did not require such a prerequisite for admission purpposes. Three institutions did not respond to the question.

The Master's Degree

Requirements were less stringent regarding the necessity for an applicant to have earned a master's degree as a prerequisite for admission to the doctoral program. Specifically, 40 institutions or 35.4 percent of the Participating Group, required a master's degree, while 65 or 57.5 percent had no such requirement. Two institutions indicated departmental variations as to this requirement, while six of the respondents gave no answer to this question. As shown in Table 21, among the Old Institutions, 26 or 31.3 percent indicated that they did require a master's degree. The New Institutions, however, revealed a higher percent (46.4) in favor of this requirement. Presumably at those institutions where the applicant's admission to the doctoral program was not contingent upon having earned the master's degree, equivalency in terms of credit hours was all that was necessary for entrance purposes. Some programs in higher education indicated a preference for a master's degree in a subject-matter area.

TABLE 21

PREVIOUS DEGREES REQUIRED FOR ADMISSION

	Old Institutions								New Institutions							
Degree	Yes	%	No	%	Varies	%	No Response	%	Yes	%	No	%	Varies	%	No Response	%
Bachelor's	79	95.2	2	2.4	–	–	2	2.4	27	90.0	2	6.7	–	–	1	3.3
Master's	26	31.3	50	59.6	1	1.2	6	7.2	14	46.7	15	50.0	1	3.3	–	–

All Institutions								Total
Yes	%	No	%	Varies	%	No Response	%	Inst.
106	93.8	4	3.5	–	–	3	2.7	113
40	35.4	65	57.5	2	1.8	6	5.3	113

PREVIOUS GRADE-POINT AVERAGES

The questionnaire inquired if admission to the doctoral program was contingent upon the applicant's grade-point average, both at the undergraduate and graduate levels.

Undergraduate Grade Average

As indicated in Table 22, 67 or 59.3 percent of participating institutions utilized the grade-point average, based on undergraduate work, as an admissions requirement. A similar percent, 61.5 percent, of the Old Institutions had this requirement; while only 53.3 percent of the New Institutions so reported. Thus, it would appear that the New Institutions did not hold to this requirement as stringently as did the Old Institutions.

Apparently greater emphasis was placed upon the grade-point average based on work beyond the baccaulaureate degree for doctoral admissions. Table 22 showed that 79 institutions, or 69.9 percent of the Participating Group, made use of this criterion for admission purposes. A very similar picture was seen for both the Old and the New Institutions, their respective percent figures being 68.7 and 73.3. The University of Wisconsin indicated that the requirement varied with the department. It should be noted, however, that 32 institutions reported that no specific grade-point average was required for doctoral admission. Since no specific grade-point average was indicated, it was assumed that a more informal gauge of previous academic success was utilized.

Only one institution did not respond to this question.

Letters of Recommendation

On the basis of responses to the questionnaire, Table 23 showed that 96 or 85.0 percent of the participating institutions required at least one letter of recommendation for admission. Approximately the same percent, 81.9, of the Old Institutions had such a requirement; while a larger percent, 93.4, of the New Institutions did.

It was noted that 10, or 8.8 percent of the institutions, indicated that this requirement varied with the department. This apparently pointed to individual departments setting up their own criteria for evaluating statements on an applicant's previous work and professional experience. In addition, it was interesting to record that six institutions had no letter of recommendation criterion as part of the admission process to the doctoral program.

TABLE 23

LETTERS OF RECOMMENDATION REQUIRED FOR ADMISSION

Response	Old Institutions No.	%	New Institutions No.	%	All Institutions No.	%
Yes	68	81.9	28	93.4	96	85.0
No	5	6.1	1	3.3	6	5.3
Varies	9	10.8	1	3.3	10	8.8
No Response	1	1.2	–	–	1	0.9
Total	83	100.0	30	100.0	113	100.0

TEACHING CERTIFICATES

Responses to the questionnaire indicated that about 43 percent of all programs did not require a teaching certificate for admission.[1] The data presented in Table 24 also indicated a marked variation between Ed.D. and Ph.D. programs.

Slightly less than one-half of participating institutions did not have this requirement for the Ph.D. There was almost an identical pattern revealed within the Old Institutions, while 45.5 percent of New Institutions did not have this requirement.

TABLE 22

ADMISSION CONTINGENT ON GRADE POINT AVERAGE

Grade Point Average	Old Institutions Yes	%	No	%	Varies	%	No Response	%	New Institutions Yes	%	No	%	Varies	%	No Response	%
Undergraduate	51	61.5	31	37.3	–	–	1	1.2	16	53.3	14	46.7	–	–	–	–
Graduate	57	68.7	24	28.9	1	1.2	1	1.2	22	73.3	8	26.7	–	–	–	–

Grade Point Average	All Institutions Yes	%	No	%	Varies	%	No Response	%	Total Institutions
Undergraduate	67	59.3	45	39.8	–	–	1	0.9	113
Graduate	79	69.9	32	28.3	1	0.9	1	0.9	113

[1]This includes Springfield College with the D. P. E. Program.

TABLE 24

TEACHING CERTIFICATE REQUIRED FOR ADMISSION

Requirement	Old Institutions Ph.D.	%	Ed.D.	%	New Institutions Ph.D.	%	Ed.D.	%	All Institutions Ph.D.	%	Ed.D.	%
Certificate Required	4	6.0	14	20.3	3	13.6	6	28.6	7	7.9	20	22.2
Certificate Not Required	33	49.2	28	40.6	10	45.5	4	19.0	43	48.3	32	35.6
Varies	28	41.8	26	37.7	9	40.9	9	42.9	37	41.6	35	38.9
No Response	2	3.0	1	1.4	–	–	2	9.5	2	2.2	3	3.3
Total	67	100.0	69	100.0	22	100.0	21	100.0	89	100.0	90	100.0

In general, more Ed.D. than Ph.D. programs required a teaching certificate for admission. On the other hand, approximately two-fifths of both Ph.D. and Ed.D. programs left this requirement to the discretion of the department. Forty percent of the Ph.D. programs at all participating institutions indicated that this requirement varied, with a similar percent noted for both the Old Institutions and the New Institutions. Slightly less than 40 percent of the Ed.D. programs at All Institutions indicated that this requirement varied, with a similar percent noted for the Old Institutions. At the New Institutions, however, 42.9 percent of Ed.D. programs indicated that this requirement was at departmental discretion.

TEACHING EXPERIENCE

Closely related to the requirement for a teaching certificate were policies regarding teaching experience as part of the admission process. Responses to this particular item on the questionnaire revealed that all doctoral programs were about equally divided between requiring and not requiring teaching experience for admission to the doctoral program. There was less variation between Ph.D. and Ed.D. programs than had been the case when the teaching certificate had been utilized as one of the criteria in admission requirements.

As indicated in Table 25, more than twice the number of Ph.D. programs at All Institutions did not require teaching experience as an integral part of the admission process as did require this criterion. At the Old Institutions this ratio stood at more than 3 to 1 against such a requirement. On the other hand, at the New Institutions, more Ph.D. programs required teaching experience for admission to doctoral programs than did not.

A greater number of All Institutions required teaching experience for Ed.D. programs by a ratio of about 3 to 2. In the case of the Old Institutions somewhat more Ed.D. programs maintained this requirement than did not. The difference, however, was more marked in the case of the New Institutions, where Ed.D. programs requiring teaching experience as part of the admission process, outscored those not having such a requirement by a ratio of 3 to 1.

About two-fifths of all Ph.D. and Ed.D. programs left this requirement to the discretion of the individual department. This proportion held true for Old Institutions, New Institutions, and All Institutions. Close to one-tenth of the Participating Group did not respond to this question.

Table 26 gave a profile of the years of teaching experience required for all Ph.D. and Ed.D. programs at All Institutions, as well as at both the Old Institutions and the New Institutions. Although it was noted that from two to three years of teaching experience was the usual requirement, considerably more instances of variation by department or of no fixed requirement were recorded. Little deviation from this pattern was apparent whether All, Old or New Institutions were being examined.

TABLE 25

TEACHING EXPERIENCE REQUIRED FOR ADMISSION

Requirement	Old Institutions Ph.D.	%	Ed.D.	%	New Institutions Ph.D.	%	Ed.D.	%	All Institutions Ph.D.	%	Ed.D.	%
Experience Required	7	10.4	20	28.6	7	31.8	9	45.0	14	15.7	29	32.2
Experience Not Required	25	37.3	15	21.4	4	18.2	3	15.0	29	32.6	18	20.0
Varies	28	41.8	27	38.6	10	45.5	7	35.0	38	42.7	34	37.8
No Response	7	10.4	8	11.4	1	4.5	1	5.0	8	9.0	9	10.0
Total	67	100.0	70	100.0	22	100.0	20	100.0	89	100.0	90	100.0

TABLE 26

YEARS OF TEACHING EXPERIENCE REQUIRED

Years	Old Institutions Nr. of Prog.	Old Institutions Percent	New Institutions Nr. of Prog.	New Institutions Percent	All Institutions Nr. of Prog.	All Institutions Percent
None	38	27.6	7	17.1	45	25.1
One	1	0.7	0	–	1	0.6
Two	13	9.4	6	14.6	19	10.6
Three	13	9.4	9	22.0	22	12.3
Four	2	1.4	0	–	2	1.1
Five	0	0.0	1	2.4	1	0.6
Varies	56	40.6	17	41.5	73	40.8
No Response	15	10.9	1	2.4	16	8.9
Total	138	100.0	41	100.0	179	100.0
Mean	1.0 Year		1.9 Years		1.3 Years	
Range	0-4 Years		0-5 Years		0-5 Years	

TABLE 27

MAXIMUM AGE BEYOND WHICH ADMISSION DENIED

Maximum Age	Old Institutions Nr. of Inst.	Old Institutions Percent	New Institutions Nr. of Inst.	New Institutions Percent	All Institutions Nr. of Inst.	All Institutions Percent
35 Years	1	1.2	–	–	1	0.9
40 Years	1	1.2	1	3.3	2	1.8
45 Years	6	7.2	–	–	6	5.3
50 Years	1	1.2	1	3.3	2	1.8
55 Years	–	–	–	–	–	–
Varies	2	2.4	1	3.3	3	2.6
No Requirement	71	85.6	27	90.1	98	86.7
No Response	1	1.2	–	–	1	0.9
Total	83	100.0	30	100.0	113	100.0
Mean	43.9 Years		45.0 Years		44.1 Years	
Range	35-50 Years		40-50 Years		35-50 Years	

AGE REQUIREMENT

Stated Age Requirement

A total of ll institutions reported reliance on an absolute age as an admissions requirement. These institutions had a maximum age beyond which admission was denied. These ages ranged from 35 to 50 years, with the median being 45 years and the mean being 44.1 years.

As shown in Table 27, the nine Old Institutions with this requirement ranged from 35 to 50 years, with the median being 45 years and the mean being 43.9 years. The two New Institutions having a fixed maximum age were remarkably similar in format.

Three institutions reported that they did have a maximum age requirement for admission, but the determinaton of that age was left to the department in reviewing candidates for admission.

Preferred Maximum Age

A number of institutions reported that they did not have a stated policy regarding a maximum age, beyond which admission was denied. However, they did report an informal arrangement by which students beyond a certain age were strongly discouraged. There were 21 such instances with four institutions indicating that such a criterion varied within individual departments. As shown in Table 28, where a composite profile for All Institutions was presented, the preferred maximum age ranged from 35 to 55 years, with the median being 45 years and the mean being 43.8 years.

TABLE 28

PREFERRED MAXIMUM AGE FOR DENYING ADMISSION

Maximum Age	All Institutions Number	Percent
35 Years	1	0.9
40 Years	8	7.1
45 Years	8	7.1
50 Years	3	2.6
55 Years	1	0.9
Varies	4	3.5
No Requirement	86	76.1
No Response	2	1.8
Total	113	100.0
Mean	43.8 Years	
Range	35-55 Years	

Particular emphasis, however, should be given to the fact that 98 institutions or 86.7 percent of the Participating Group reported no stated age requirement, and that 86 or 76.1 percent had no preferred age maximum as part of their admission policies.

Provisional Admission

Final determination as to whether or not an applicant is accepted for a doctoral program often rests upon the policy of type of admission. Some institutions accept a student on a regular status or not at all. Others, on the other hand, have established a provisional status whereby an applicant is placed on a probationary status, and final acceptance is determined by a number of conditions which have to be met. These understandably vary from institution to institution. In the Current Study, 70 institutions of the Participating Group reported that they permitted some form of provisional status upon admission. This represented 61.9 percent of All Institutions. The Old Institutions permitted such a status by a ratio of 2 to 1. The New Institutions, however, were equally divided over this particular facet of the admission process. Table 29 also pointed to the equally important fact that 41 or 36.3 percent of All Institutions did not sanction a provisional admission status. Two institutions responding to the questionnaire did not answer the question regarding provisional admission.

TABLE 29

PROVISIONAL ADMISSION

Response	Old Institutions Number	Percent	New Institutions Number	Percent	All Institutions Number	Percent
Yes	55	66.3	15	50.0	70	61.9
No	26	31.3	15	50.0	41	36.3
No Response	2	2.4	–	–	2	1.8
Total	83	100.0	30	100.0	113	100.0

ENTRANCE EXAMINATIONS

Entrance examinations have long characterized an introduction to doctoral study in Education. All but ten of the 113 institutions in the Participating Group used some type of entrance examination as part of the admission requirements. This meant that 103, or 91.1 percent of All Institutions, used entrance examinations. Furthermore, 88.0 percent of the Old Institutions and 100.0 percent of the New Institutions utilized this form of screening applicants. Seven institutions reported that use of entrance examinations was left to the discretion of individual departments as they reviewed applications for admission. As shown in Table 30, only one institution in the Participating Group did not respond to this question.

TABLE 30

ENTRANCE EXAMINATION USED FOR ADMISSION

Response	Old Institutions Number	Old Institutions Percent	New Institutions Number	New Institutions Percent	All Institutions Number	All Institutions Percent
Yes	73	88.0	30	100.0	103	91.1
No	2	2.4	–	–	2	1.8
Varies	7	8.4	–	–	7	6.2
No Response	1	1.2	–	–	1	0.9
Total	83	100.0	30	100.0	113	100.0

Respondents, where applicable, were requested to list which examinations were used for entrance purposes. The most frequently employed examination was the Graduate Record Examination which was used by 93 institutions or 82.3 percent of all institutions in the Participating Group. The same examination also headed the list for the Old Institutions with 65 of these or 78.3 percent indicating that they used this instrument for screening purposes. It proved even more popular with the New Institutions with 28 schools or 93.3 percent reporting its use.

As seen in Table 31, the Miller Analogies Test was the next most frequently employed, 61 or 54.0 percent of institutions in the Participating Group reporting its use. The same trend held true for the Old Institutions with 55.4 percent, and the New Institutions with 50.0 percent.

Apart from locally constructed tests, which were reported by ten of the institutions, there were a number of different entrance examinations used. Most of these were used at only one institution. In a number of cases, these other tests were used in conjunction with either the Graduate Record Examination or the Miller Analogies Test or both.

Three models of usage were noted in the case of the Graduate Record Examination. Some required the aptitude section only. Some required both the aptitude and advanced sections. A third possibility permitted the individual department the option of administering the advanced section according to its own peculiar needs.

When both the Graduate Record Examination and the Miller Analogies Test were used, this often reflected the institutional requirement. In some cases, however, the Miller Analogies Test was viewed as optional within the department. In these cases, it was used as an additional test for screening, when necessary. With some institutions the applicant was permitted a choice of which examination to take.

ADMISSION INTERVIEWS

Table 32 showed that 39 institutions, or 34.5 percent of All Institutions, required a personal interview as part of the admissions procedure, while 18.6 percent had no such requirement. More than 30 percent of the Old Institutions required a personal interview, while 46.7 percent of the

TABLE 31

ADMISSIONS EXAMINATIONS USED

Examination	Old Institutions Number	Old Institutions Percent	New Institutions Number	New Institutions Percent	All Institutions Number	All Institutions Percent
Graduate Record Examination	65	78.3	28	93.3	93	82.3
Miller Analogies Test	46	55.4	15	50.0	61	54.0
Locally Constructed Test	7	8.4	3	10.0	10	8.8
Cooperative English Examination	3	3.6	5	16.7	8	7.1
MMPI	2	2.4	3	10.0	5	4.4
Doppelt Math Examination	4	4.8	–	–	4	3.5
Watson-Glaser Test of Critical Thinking	1	1.2	1	3.3	2	1.8
ATGSB	1	1.2	–	–	1	0.9
Guilford-Zimmerman	1	1.2	–	–	1	0.9
IRE Intelligence Scale	1	1.2	–	–	1	0.9
National Teacher Examination	1	1.2	–	–	1	0.9
Ohio Psychology Test	1	1.2	–	–	1	0.9
Sequential Test of Educational Progress	1	1.2	–	–	1	0.9
Terman Concept Mastery Test	1	1.2	–	–	1	0.9
Varies	2	2.4	–	–	2	1.8

New Institutions made such a stipulation.

The most frequent response on the questionnaire to this item was that the personal interview was not required, but recommended. It was noted that 45.1 percent of all the institutions in the Participating Group responded in this manner. Similar percents were indicated for both Old Institutions and New Institutions.

The questionnaire also requested that the respondents check, from a list, the persons responsible at the institution for conducting the admissions interview. Table 33 showed the list of these persons, ranked in decreasing order of the number of All Institutions. The chairman of the department or division was the most frequently used interviewer, closely followed by the prospective adviser and individual faculty members. It was worthy of note that this ordering was the same for both New Institutions and All Institutions, except that the departmental or divisional chairman ranked only third in the Old Institutions. It might be speculated that in the longer established colleges, the division or department chairmen were assigned greater administrative responsibilities, thereby having less time for personal interviews.

The category denoted as "Other" included four persons which were not on the list given in the questionnaire. These were the Executive Secretary of the Education Faculty, Student Committee, the Advisor for General Orientation, and the Director of Doctoral Studies in the area.

ADMISSIONS COUNSELING

Closely related to the requirement for personal interviews, was the practice of making some form of admissions counseling available to the applicants. As indicated in Table 34, 110 or 97.3 percent of all institutions in the Participating Group offered admissions counseling service to applicants. This same high percent was reflected in the returns for both Old and New Institutions.

The two principal sources for admissions counseling occurred within the Education unit and the institution's general personnel services. More than 95 percent of All Institutions offered these services within the Education unit, a position virtually identical with that operating in Old Institutions. The New Institutions returned a percent of 86.7

TABLE 32

PERSONAL INTERVIEW FOR ADMISSION AVAILABLE

Response	Old Institutions Number	Old Institutions Percent	New Institutions Number	New Institutions Percent	All Institutions Number	All Institutions Percent
Yes	25	30.1	14	46.7	39	34.5
No	19	22.9	2	6.6	21	18.6
Not Required but Recommended	37	44.6	14	46.7	51	45.1
No Response	2	2.4	–	–	2	1.8
Total	83	100.0	30	100.0	113	100.0

TABLE 33

PERSONS RESPONSIBLE FOR ADMISSIONS INTERVIEWING

Interviewer	Old Institutions Number	Old Institutions Percent	New Institutions Number	New Institutions Percent	All Institutions Number	All Institutions Percent
Department or Division Chairman	25	30.1	22	73.3	47	41.6
Prospective Advisor	31	37.3	12	40.0	43	38.1
Individual Faculty Members	30	36.1	9	30.0	39	34.5
Faculty Committee	24	28.9	10	33.3	34	30.1
Dean of Education	10	12.0	2	6.7	12	10.6
Admissions Officer	7	8.4	–	–	7	6.2
Graduate Dean	4	4.8	3	10.0	7	6.2
Other	3	3.6	1	3.3	4	3.5

TABLE 34

ADMISSIONS COUNSELING AVAILABLE

Response	Old Institutions Number	Percent	New Institutions Number	Percent	All Institutions Number	Percent
Yes	82	98.8	28	93.4	110	97.3
No	–	–	1	3.3	1	0.9
No Resonse	1	1.2	1	3.3	2	1.8
Total	83	100.0	30	100.0	113	100.0

for the provision of this service. It should be noted that this counseling could, and did, operate in more than one center. This explains the percents recorded in Table 35 not totalling 100.0 percent.

SUMMARY

It was generally standard practice to require a bachelor's degree for admission, 93.5 percent of All Institutions reporting this requirement. On the other hand, only 35.4 percent of the participating institutions required the master's degree as an admission requirement. This pointed to the use of hour equivalency in place of the degree itself.

Almost three-fifths of the institutions had admission contingent upon the undergraduate grade-point average, and 69.9 percent made graduate grade-point average a factor in admission. About 85 percent of the institutions required at least one letter of recommendation for admission, and more than 60 percent permitted provisional admission.

A teaching certificate was not required for admission in nearly one-half of the Ph.D. programs, with the same being true for about 35 percent of Ed.D. programs. Approximately two-fifths of both Ph.D. and Ed.D. programs indicated that this requirement varied with the area of study.

There was no formal requirement of teaching experience for admission to doctoral study, with the most frequent response being that this was decided at the discretion of individual departments. This held true for both Ph.D. and Ed.D. requirements. In the case of those institutions that indicated a specific number of years, the period ranged from 0 to 5 years, the median being two years and the mean being 1.3 years.

Although the age factor as a criterion for admission was not strongly emphasized with less than one-fifth of the institutions making a definite maximum cut-off point, some 24 institutions expressed a preferred maximum age beyond which admission was denied. When an age was stated as a preferred maximum, this ranged from 35 to 50 years, with a median of 45 years and a mean of 43.8 years. As in a number of other admission criteria, the preferred age maximum was often left to the discretion of a given department.

More than 90 percent of the institutions required some type of entrance examination for admission. The most frequently used examinations were the Graduate Record Examination and the Miller Analogies Test. These examinations were on occasion administered singly, but more often used in combination with one another or other screening instruments. In any event, they dominated the entrance examination scene, the Graduate Record Examination being used by 78.1 percent of all participating institutions, while the Miller Analogies Test was present in more than half of these examinations.

There was no general practice about requiring a personal interview for admission. Nearly half of the institutions, however, indicated that while they did not require such an interview, they certainly recommended one. Slightly more than one-third of participating institutions did require a personal interview with a prospective doctoral student, while less than one-fifth had no such admission requirement. The persons responsible for the interview were generally associated with the department most closely linked with the applicant's intended area of study.

More than 97 percent of the institutions indicated that some form of admissions counseling was available to the

TABLE 35

SOURCE OF ADMISSIONS COUNSELING

Source	Old Institutions Number	Percent	New Institutions Number	Percent	All Institutions Number	Percent
College or Department of Education	82	98.7	26	86.7	108	95.6
Institution's General Personnel Services	24	30.4	8	26.7	32	28.3
Graduate School	14	16.8	3	10.0	17	15.0

applicant. The source of this counseling was predominantly in the college or department of Education.

General admission practices were far from being standard throughout. Although certain trends were to be observed within given criteria for admission purposes, there was wide variety among the participating institutions as to the permissiveness of certain admissions prerequisites.

CHAPTER V

CURRICULAR REQUIREMENTS

This chapter deals with the general requirements which characterize curricular policies and procedures of doctoral programs in Education. The data analyzed in this section will pertain to the 113 institutions in the Participating Group. Where an institution has not responded to a particular query, this has been noted within the relevant category.

Data relative to credit hours has been reported in terms of *semester hours* as was the case in Chapter IV.

Credit Hour System

Institutions were requested to indicate which credit hour system was operating on their respective campuses. As shown in Table 36, the semester system was the one predominantly found. Seven out of every ten institutions employed this system and this pattern held true whether it were All Institutions, the Old Institutions or the New Institutions.

The quarter system was the next most frequently used credit hour system. Here again a very consistent pattern emerged with slightly more than one-quarter of All, Old and New Institutions utilizing this practice.

There were three institutions which used a credit hour system which was somewhat different from either the semester or the quarter systems. One institution used a system that was a hybrid of the semester and quarter systems.[1] The other two institutions used a system of course units, one of which equated to the quarter system[2] and the other of which equated to the semester system.[3] One institution did not respond to this item on the questionnaire.

TABLE 36

CREDIT HOUR SYSTEM

System	Old Institutions No.	%	New Institutions No.	%	All Institutions No.	%
Semester	58	69.9	21	70.0	79	69.9
Quarter	21	25.3	9	30.0	30	26.5
Other	3	3.6	–	–	3	2.7
No Response	1	1.2	–	–	1	0.9
Total	83	100.0	30	100.0	113	100.0

HOURS REQUIREMENTS

Minimum Hours Required for Doctorate

As shown in Table 37, all but 16, or 17.8 percent of the 90 Ed.D. programs, had a relatively formal requirement pertaining to a minimum number of total hours, including the thesis, that doctoral students were expected to earn. Twenty, or 22.5 percent, of the 89 Ph.D. programs had no such requirement.

The requirement for Ed.D. programs ranged from 44 to 99 hours with the mean being 82.2 hours and the median being 87 hours. For a Ph.D. degree the range was from 42 to 96 hours with a mean of 75.7 hours and a median of 76 hours.

At the Old Institutions, the Ph.D. programs ranged from 42 to 90 hours with a mean of 74.3 hours and a median of 72 hours. In the case of the Ed.D. programs at these institutions, the requirements ranged from 60 to 96 hours with a mean of 82.0 hours and a median of 84 hours.

Basically the picture at the New Institutions was very similar with regard to this particular aspect of doctoral study. Ph.D. requirements ranged from 60 to 96 hours, with a mean of 78.5 hours and a median of 80 hours. The mean requirement for Ed.D. programs at these institutions was 80.1 hours, while the median stood at 90 hours and the range extended from 60 to 99 hours.

There were seven Ph.D. programs and four Ed.D. programs where the number of hours required was left to the discretion of the student's committee. In general, it might be fairly stated that the Ph.D. programs showed a greater range of hours than did Ed.D. programs. On the other hand,

[1]University of Pittsburgh had three 15-week terms per year but reported credit hours in semester hours.
[2]Northwestern University used a system where one course unit equaled four quarter hours.
[3]University of Pennsylvania used a system where one course unit equaled three semester hours.

the Ed.D. programs required a greater number of total hours to earn the doctorate. It should be reiterated, however, that one in five institutions responded that no number of hours was specified as a requirement. This was a different category of response from those placing this requirement in the hands of the candidate's committee. There was nothing in the data to offer an explanation for this position but it may be surmised that a growing number of institutions are moving away from the concept of an advanced graduate degree being linked with a specific number of credit hours. Only two institutions made no response to this particular item.

Minimum Hours Beyond Master's Degree Required

Closely related to the number of hours required for the doctorate was the requirement of a specific number of credit hours beyond the master's degree, or its equivalent, for the doctorate in Education to be conferred. According to Table 38, all but 22 or 24.7 percent of Ph.D. programs and 13 or 14.5 percent of Ed.D. programs, indicated that a minimum number of hours beyond the master's degree was required of students aiming at earning a doctorate.

Among All Institutions, Ph.D. programs had requirements ranging from 18 to 90 hours with a mean of 49.4 hours and a median of 54 hours. Requirements for Ed.D. programs closely paralleled this pattern with a mean of 51.8 hours and a median of 58 hours. The range was identical with that of Ph.D. programs being 18 to 90 hours.

The picture was strikingly similar both in Old Institutions and New Institutions with hour requirements for Ed.D. programs being slightly heavier than for Ph.D. programs. Candidates for Ph.D. degrees at Old Institutions had the requirement ranging from 18 to 90 hours with a mean of 47.5 hours and a median of 49 hours. The latter two figures changed slightly upward in the case of the New Institutions, these being 52.7 and 60 hours respectively. A more significant change was that in the range of hours required beyond the master's degree. Here a much less extreme pattern was recorded, the range being between 24 and 66 hours.

The Ed.D. programs revealed similar trends when Old and New Institutions were compared. Again both the mean and median hours required moved upward, this time being of the order of six hours. The more narrow range of hours was also observed but the change in the case of the Ed.D. programs was even more spectacular than that noted when the relative positions of the Ph.D. programs were examined. Nothing in the data suggested why these changes had occurred within the New Institutions but it was refreshing evidence that slavish imitation of Old Institutions had not been undertaken in this particular regard.

TABLE 37

MINIMUM SEMESTER HOURS REQUIRED FOR DOCTORATE

	Old Institutions				New Institutions				All Institutions			
Hours	Ph.D.	%	Ed.D.	%	Ph.D.	%	Ed.D.	%	Ph.D.	%	Ed.D.	%
40-44	1	1.5	–	–	–	–	–	–	1	1.1	–	–
45-49	1	1.5	–	–	–	–	–	–	1	1.1	–	–
50-54	2	3.0	–	–	–	–	–	–	2	2.3	–	–
55-59	–	–	–	–	–	–	–	–	–	–	–	–
60-64	11	16.4	6	8.5	5	22.7	3	15.8	16	18.0	9	10.0
65-69	–	–	4	5.6	–	–	–	–	–	–	4	4.4
70-74	8	11.9	10	14.1	1	4.5	1	5.3	9	10.1	11	12.2
75-79	3	4.5	2	2.8	2	9.1	3	15.8	5	5.6	5	5.6
80-84	4	6.0	4	5.6	1	4.6	–	–	5	5.6	4	4.4
85-89	–	–	–	–	1	4.6	1	5.3	1	1.1	1	1.1
90 & Above	14	20.9	26	36.6	7	31.8	9	47.3	21	23.6	35	38.9
Varies	3	4.5	4	5.6	4	18.2	–	–	7	7.9	4	4.5
None Specified	19	28.3	14	19.8	1	4.5	2	10.5	20	22.5	16	17.8
No Response	1	1.5	1	1.4	–	–	–	–	1	1.1	1	1.1
Total	67	100.0	71	100.0	22	100.0	19	100.0	89	100.0	90	100.0
Mean[a]	74.3		82.0		78.5		80.1		75.7		82.2	
Range	42-90 Hrs.		60-96Hrs.		60-96 Hrs.		60-99 Hrs.		42-96 Hrs.		60-99 Hrs.	

[a]Based on institutions that reported a specified number of hours.

As in the case of the minimum number of hours required, it is well to emphasize that a sizeable number of both Ph.D. and Ed.D. Programs had no specified requirement in this category. In addition, six of the respondents operating Ph.D. programs and seven involved in Ed.D. programs did not answer this particular item on the questionnaire. It, therefore, followed that although certain trends were apparent great diversity was also present often within the same institution. Nevertheless, it did seem that little change had occurred in the intervening years between the AACTE study and the Current Study with regard to the proportion of the total number of hours to be taken after the master's degree or its equivalent at the degree – granting institution in order to earn the doctorate. This inference was based upon the assumption that generally a doctoral student will carry the bulk of his advanced graduate work at the institution which will confer the degree upon him. In the AACTE study it was estimated that at least one-half of the total hours required would be taken at the "home" institution in the case of the Ed.D. degree. In the same manner, it was calculated that about five-eighths of the Ph.D. hours had to be earned at the degree-granting institution. The findings in the Current Study suggested that a similar position prevailed which, if anything, emphasized the "home" institution even more. This was more in evidence in the case of the New Institutions than it was for the Old Institutions.

Maximum Transferable Hours Permitted

Graduate work taken at one institution is sometimes offered in partial fulfillment of the requirements for the doctorate at another institution. This has to be approved by the institution granting the doctorate, and there is usually a specified number of hours which can be transferred from another institution.

As shown in Table 39, 21 or 23.6 percent of all Ph.D. programs and 16 or 17.8 percent of all Ed.D. programs did not specify a limitation on the number of transferable hours.

The total ranges for both degree programs were somewhat extreme, the permitted hours for the Ph.D. programs being from 0 to 60 hours, while Ed.D. programs reported a range from 0 to 64 hours.

A reasonably consistent pattern emerged with the Ph.D. programs whether these were observed over All Institutions, Old Institutions or the New Institutions, the mean recorded in each of the three categories being approximately 33 hours. There was some deviation, however, with regard to the range of transferable hours permitted when the Old and New Institutions were compared. The latter had an appreciably lower maximum, the greatest number permitted being

TABLE 38

MINIMUM SEMESTER HOURS BEYOND MASTER'S DEGREE REQUIRED

	Old Institutions				New Institutions				All Institutions			
Hours	Ph.D.	%	Ed.D.	%	Ph.D.	%	Ed.D.	%	Ph.D.	%	Ed.D.	%
15-19	1	1.5	1	1.4	–	–	–	–	1	1.1	1	1.1
20-24	2	3.0	1	1.4	1	4.5	–	–	3	3.4	1	1.1
25-29	–	–	–	–	–	–	–	–	–	–	–	–
30-34	7	10.4	6	8.5	1	4.5	–	–	8	9.0	6	6.7
35-39	3	4.5	5	7.1	–	–	–	–	3	3.4	5	5.6
40-44	6	8.9	8	11.3	2	9.1	1	5.2	8	9.0	9	10.0
45-49	4	6.0	5	7.0	3	13.6	4	21.1	7	7.9	9	10.0
50-54	4	6.0	3	4.2	–	–	–	–	4	4.5	3	3.3
55-59	1	1.5	1	1.4	1	4.5	1	5.2	2	2.2	2	2.2
60-64	13	19.5	22	31.0	10	45.5	8	42.1	23	25.8	30	33.3
65 & Above	1	1.5	1	1.4	1	4.6	2	10.6	2	2.3	3	3.3
Varies	–	–	–	–	–	–	1	5.2	–	–	1	1.1
None Specified	20	29.8	13	18.3	2	9.1	–	–	22	24.7	13	14.5
No Response	5	7.4	5	7.0	1	4.6	2	10.6	6	6.7	7	7.8
Total	67	100.0	71	100.0	22	100.0	19	100.0	89	100.0	90	100.0
Mean[a]	47.5		50.1		52.7		56.3		49.4		51.8	
Range	18-90 Hrs.		18-90 Hrs.		24-66 Hrs.		44-66 Hrs.		18-90 Hrs.		18-90 Hrs.	

[a]Based on institutions that reported a specified number of hours.

48 as compared with the 60 hours allowable in the case of Old Institutions. The median number of transferable hours, however, remained close to 32 hours in each of the three categories. Eight of the participating institutions offering the Ph.D. program did not respond to this item on the questionnaire and one institution indicated that this varied with the department.

Ed.D. programs, although not markedly different from Ph.D. programs with regard to this facet of the study, did nevertheless reveal some change. The differences were negligible when these programs were compared with Ph.D. programs both in All Institutions and in Old Institutions, although in both cases on an average slightly more credit hours were permitted to be transferred in the Ed.D. programs. The more apparent differences, however, were noted in the New Institutions. In these settings, the mean of transferable hours in Ed.D. programs was 42.0 with a range from 6 to 63, whereas the Ph.D. programs showed a mean of 32.2 hours with a range of 0 to 48 hours permitted to be transferred. It should also be noted that it was within the Ed.D. programs in the New Institutions that the number of transferable hours with a mean of 42.0 hours was almost ten hours more on an average than permitted in either degree program in any of the other categories of institutions. All of this indicated that Ed.D. programs generally permitted more hours to be transferred than Ph.D. programs, and that New Institutions were permitting more transferable hours than were Old Institutions. It would be well to note that these are trends only and that great variation exists from institution to institution and from program to program. The number of hours permitted to be transferred must always be balanced by the residence requirements operating within a given institution. Therefore any prospective candidate for a doctoral degree in Education should always recognize that although a maximum number of transferable hours may be quoted by an institution, his own program and the residence requirements of the "home" institution will, in large measure, determine the actual number of hours transferred for credit purposes.

RESIDENCE REQUIREMENTS

The purpose of this section was to determine the degree to which institutions regarded a residence requirement as an integral part of the doctoral program. It was not the purpose to examine and analyze the degrees of latitude prevalent at the various institutions where a definite period of

TABLE 39

MAXIMUM TRANSFERABLE SEMESTER HOURS PERMITTED

	Old Institutions				New Institutions				All Institutions			
Hours	Ph.D.	%	Ed.D.	%	Ph.D.	%	Ed.D.	%	Ph.D.	%	Ed.D.	%
0-4	1	1.5	1	1.4	1	4.6	–	–	2	2.2	1	1.1
5-9	3	4.5	3	4.2	1	4.6	1	5.3	4	4.5	4	4.4
10-14	2	3.0	1	1.4	–	–	–	–	2	2.2	1	1.1
15-19	2	3.0	4	5.7	1	4.6	–	–	3	3.4	4	4.4
20-24	6	9.0	5	7.0	1	4.5	–	–	7	7.9	5	5.6
25-29	2	3.0	1	1.4	–	–	–	–	2	2.3	1	1.1
30-34	11	16.3	11	15.5	2	9.1	1	5.3	13	14.6	12	13.3
35-39	4	6.0	5	7.0	1	4.5	–	–	5	5.6	5	5.6
40-44	2	3.0	3	4.2	3	13.6	3	15.8	5	5.6	6	6.7
45-49	5	7.4	8	11.3	4	18.2	6	31.5	9	10.1	14	15.6
50-54	3	4.5	2	2.8	–	–	–	–	3	3.4	2	2.2
55-59	–	–	–	–	–	–	–	–	–	–	–	–
60-64	4	6.0	6	8.5	–	–	1	5.3	4	4.5	7	7.8
Varies	1	1.5	2	2.8	–	–	1	5.3	1	1.1	3	3.3
None Specified	16	23.9	12	16.9	5	22.7	4	21.0	21	23.6	16	17.8
No Response	5	7.4	7	9.9	3	13.6	2	10.5	8	9.0	9	10.0
Total	67	100.0	71	100.0	22	100.0	19	100.0	89	100.0	90	100.0
Mean[a]	32.5		33.1		32.2		42.0		33.1		36.5	
Range	0-60 Hrs		0-64 Hrs.		0-48 Hrs.		6-63 Hrs.		0-64 Hrs.		0-60 Hrs.	

[a]Based on institutions that reported a specified number of hours.

uninterrupted enrollment was mandatory, but rather to determine what proportion of the institutions, and of the programs within them, considered this an essential facet of doctoral study.

As indicated in Table 40, the overwhelming response both within the degree programs and among the varying types of institutions was in favor of the residence requirement. The residence requirements were difficult to categorize, these ranging from a definite statement to a loose arrangement of part-time work. Where definite statements were available, these ranged from a given period of time to be in residence to a specific number of hours to be accumulated in residence or a combination of both.

The questionnaire inquired if the conferring of the doctorate was contingent upon the completion of a residence requirement. The responses showed that 97.8 percent of all Ph.D. programs and 95.6 percent of all Ed.D. programs required the completion of some type of residence. The Old Institutions produced an almost identical picture and it was interesting to note the New Institutions, without exception, had a definite residence requirement both in Ph.D. and Ed.D. programs.

THE TIME FACTOR

Recommended Maximum

Respondents were requested to state whether a recommended maximum time for degree completion operated within their institutions and, where applicable, what that period was. Often this period is expressed as the number of years from the time the student is admitted to degree candidacy, while in some institutions this is denoted in terms of the years from the time that the student is admitted to the doctoral program.

As indicated in Table 41, considerable diversity existed among the institutions relative to the maximum period of time recommended for completion of the doctorate in Education. Time, in this analysis, referred to the number of years the student should take from admission to study through graduation. It was not intended that this time factor be reported in relation to admission to candidacy alone. Some responses (six), however, seemed to indicate that this was the criterion used, but reference to the respective catalogues gave no confirmation of this.

TABLE 41

MAXIMUM TIME FOR DEGREE COMPLETION

Years	Old Institutions No.	%	New Institutions No.	%	All Institutions No.	%
0	–	–	–	–	–	–
0.5	–	–	–	–	–	–
1.0	3	3.6	–	–	3	2.7
1.5	–	–	–	–	–	–
2.0	3	3.6	–	–	3	2.7
2.5	–	–	–	–	–	–
3.0	8	9.6	3	10.0	11	9.7
3.5	1	1.2	–	–	1	0.9
4.0	6	7.2	2	6.7	8	7.1
4.5	–	–	–	–	–	–
5.0	13	15.7	3	10.0	16	14.1
5.5	–	–	1	3.3	1	0.9
6.0	4	4.8	5	16.7	9	8.0
6.5	1	1.2	–	–	1	0.9
7.0	13	15.7	8	26.7	21	18.6
7.5	–	–	–	–	–	–
8.0	11	13.3	4	13.3	15	13.2
8.5	–	–	–	–	–	–
9.0	–	–	–	–	–	–
9.5	–	–	–	–	–	–
10.0	4	4.8	3	10.0	7	6.2
Not Specified	10	12.1	1	3.3	11	9.7
No Response	6	7.2	–	–	6	5.3
Total	83	100.0	30	100.0	113	100.0
Mean[a]	6.0 Yrs.		6.4 Yrs.		6.3 Yrs.	
Range	1-10 Yrs.		3-10 Yrs.		1-10 Yrs.	

[a]Based on institutions that reported a specified number of hours.

TABLE 40

REQUIRED TO COMPLETE RESIDENCE REQUIREMENT

Response	Old Institutions Ph.D.	%	Ed.D.	%	New Institutions Ph.D.	%	Ed.D.	%	All Institutions Ph.D.	%	Ed.D.	%
Yes	65	97.0	67	94.4	22	100.0	19	100.0	87	97.8	86	95.6
No	1	1.5	1	1.4	–	–	–	–	1	1.1	1	1.1
No Response	1	1.5	3	4.2	–	–	–	–	1	1.1	3	3.3
Total	67	100.0	71	100.0	22	100.0	19	100.0	89	100.0	90	100.0

The Old Institutions revealed a profile similar to All Institutions in that the period ranged from one to ten years, the median for both was six years, and the respective means were 6.0 and 6.3 years. The New Institutions showed a shorter range, from three to ten years, with a higher median and mean, these being seven and 6.4 years respectively.

A review of the catalogues from selected institutions in the study indicated that the period from the time of admission to candidacy generally ranged from three to seven years. This finding, in large measure, was compatible with the data derived from the responding institutions. It should be noted, however, that ten of the Old Institutions and one of the New Institutions indicated that no specific time limitation was established for the completion of the degree. It appeared that these institutions were not prepared to set a particular figure, but rather to judge an individual's program upon its own merits. Six institutions, all of them among the Old Institutions, chose not the respond to this particular item on the questionnaire.

Estimated Time for Degree Completion

The time taken by a student to complete his degree is dependent upon a great number of factors, not the least of which is whether he is able to undertake a program of study on a part-time or a full-time basis. When it is realized that most institutions required some form of residence requirement, the part-time facet can function for only part of the study period. It, therefore, seemed of limited value to separate students into the two categories for comparison purposes. A combination of both part-time and full-time study is more likely to be the situation facing the student embarking upon a doctoral program in Education. As such, respondents were asked to estimate an average time for the completion of the degree, thereby taking into consideration the many variables which impinge upon the study period.

As shown in Table 42, the estimated period of time for degree completion at All Institutions ranged from two to ten years, with the median being four years and the mean being 4.1 years. Virtually the same picture prevailed at the Old Institutions and the New Institutions conformed to the pattern.

TABLE 42

ESTIMATED AVERAGE TIME FOR DEGREE COMPLETION

Years	Old Institutions No.	%	New Institutions No.	%	All Institutions No.	%
0	–	–	–	–	–	–
0.5	–	–	–	–	–	–
1.0	–	–	–	–	–	–
1.5	–	–	–	–	–	–
2.0	4	4.8	1	3.3	5	4.4
2.5	5	6.0	1	3.3	6	5.3
3.0	11	13.3	7	23.4	18	15.9
3.5	6	7.2	2	6.7	8	7.1
4.0	18	21.7	6	20.0	24	21.2
4.5	9	10.9	1	3.3	10	8.9
5.0	13	15.7	6	20.0	19	16.8
5.5	1	1.2	–	–	1	0.9
6.0	3	3.6	2	6.7	5	4.4
6.5	1	1.2	–	–	1	0.9
7.0	2	2.4	–	–	2	1.8
7.5	–	–	–	–	–	–
8.0	–	–	–	–	–	–
8.5	–	–	–	–	–	–
9.0	–	–	–	–	–	–
9.5	–	–	–	–	–	–
10.0	2	2.4	–	–	2	1.8
No Response	8	9.6	4	13.3	12	10.6
Total	83	100.0	30	100.0	113	100.0
Mean[a]	4.2 Yrs.		4.0 Yrs.		4.1 Yrs.	
Range	2-10 Yrs.		2-6 Yrs.		2-10 Yrs.	

[a]Based on institutions that reported a specified number of hours.

COURSES WITHIN THE EDUCATION UNIT

The requirement for the Ph.D. programs ranged from 0 to 58 hours, with the median being 36 hours, and the mean being 32.8 hours. Ed.D. programs showed a requirement range of 0 to 78 hours, with the median being 40 hours, and the mean standing at 37.8 hours. From these data it was apparent that Ed.D. programs not only had a considerably wider range of required hours than the Ph.D. programs, but also required more hours to be taken in professional Education courses. Twenty-eight Ph.D. programs and 18 Ed.D. programs indicated that the number of required hours varied with the individual department. Most of these programs were found at the Old Institutions. This information is given in Table 43.

Ph.D. programs at Old Institutions had the requirement ranging from 0 to 58 hours, with a median of 35 hours and the mean of 33.7 hours. Ed.D. programs at these institutions revealed almost identical ranges, but both the median and the mean for this requirement were five or more hours than in Ph.D. programs.

Among the New Institutions certain shifts were observed. Ph.D. programs, while recording the same median as that noted at the Old Institutions, showed a drop of three hours on the mean for this requirement and the range had lessened somewhat. Ed.D. programs, however, had moved their minimum requirements upward and this was reflected in both the mean and the median, these two being 42.5 and

TABLE 43

MINIMUM SEMESTER HOURS IN PROFESSIONAL EDUCATION REQUIRED

Hours	Old Institutions Ph.D.	%	Ed.D.	%	New Institutions Ph.D.	%	Ed.D.	%	All Institutions Ph.D.	%	Ed.D.	%
0-4	3	4.5	1	1.4	–	–	–	–	3	3.4	1	1.1
5-9	–	–	–	–	3	13.6	–	–	3	3.4	–	–
10-14	–	–	1	1.4	–	–	–	–	–	–	1	1.1
15-19	–	–	–	–	1	4.6	1	5.3	1	1.1	1	1.1
20-24	3	4.5	3	4.3	1	4.6	2	10.5	4	4.5	5	5.6
25-29	1	1.5	1	1.4	–	–	–	–	1	1.1	1	1.1
30-34	5	7.4	8	11.3	1	4.6	1	5.3	6	6.8	9	10.0
35-39	4	6.0	4	5.7	–	–	–	–	4	4.5	4	4.4
40-44	4	6.0	6	8.5	2	9.1	2	10.5	6	6.7	8	8.9
45-49	3	4.5	5	7.0	3	13.6	1	5.3	6	6.7	6	6.7
50-54	2	3.0	5	7.0	1	4.6	1	5.3	3	3.4	6	6.7
55-59	1	1.5	2	2.8	–	–	–	–	1	1.1	2	2.2
60-64	–	–	2	2.8	–	–	2	10.5	–	–	4	4.4
65 & Over	–	–	–	–	–	–	1	5.3	–	–	1	1.1
Varies	12	17.9	14	19.6	2	9.1	4	21.0	14	15.7	18	20.0
None Specified	22	32.8	15	21.1	6	27.1	3	15.7	28	31.5	18	20.0
No Response	7	10.4	4	5.7	2	9.1	1	5.3	9	10.1	5	5.6
Total	67	100.0	71	100.0	22	100.0	19	100.0	89	100.0	90	100.0
Mean[a]	33.7		39.3		30.6		42.5		32.8		37.8	
Range	0-58		0-60		7-54		18-78		0-58		0-78	

[a]Based on institutions that reported a specified number of hours.

TABLE 44

MINIMUM SEMESTER HOURS OUTSIDE FIELD OF EDUCATION REQUIRED

Hours	Old Institutions Ph.D.	%	Ed.D.	%	New Institutions Ph.D.	%	Ed.D.	%	All Institutions Ph.D.	%	Ed.D.	%
0-4	4	6.0	6	8.5	–	–	–	–	4	4.5	6	6.7
5-9	2	2.9	2	2.8	1	4.6	2	10.5	3	3.4	4	4.4
10-14	5	7.5	4	5.6	3	13.6	2	10.5	8	9.0	6	6.7
15-19	4	6.0	7	9.9	3	13.6	2	10.5	7	7.9	9	10.0
20-24	3	4.5	5	7.1	2	9.1	2	10.5	5	5.6	7	7.8
25-29	1	1.5	1	1.4	–	–	1	5.3	1	1.1	2	2.2
30-34	–	–	2	2.8	–	–	–	–	–	–	2	2.2
35-39	1	1.5	1	1.4	–	–	–	–	1	1.1	1	1.1
Varies	38	56.7	38	53.5	9	40.9	8	42.1	47	52.8	46	51.2
None Specified	6	8.9	3	4.2	3	13.6	1	5.3	9	10.1	4	4.4
No Response	3	4.5	2	2.8	1	4.6	1	5.3	4	4.5	3	3.3
Total	67	100.0	71	100.0	22	100.0	19	100.0	89	100.0	90	100.0
Mean[a]	14.1		15.4		15.2		16.1		14.4		15.5	
Range	0-38		0-38		8-24		8-25		0-38		0-38	

[a]Based on institutions that reported a specified number of hours.

42.0 hours respectively. While the range within Ed.D. programs remained the same as was recorded in the Old Institutions, this feature, too, had made a significant upward movement on the scale as compared with the Old Institutions. While one institution required as few as 18 hours in professional Education courses, at the other end of the scale another institution laid down 78 hours as a minimum figure for this requirement. No response to this line of inquiry was received in the case of nine of the 89 Ph.D. programs, and five of the 90 Ed.D. programs.

HOURS OUTSIDE THE FIELD

Analyses of the data in this section was largely restricted by having positive responses from only 29 of the 89 Ph.D. programs and only 37 of the 90 Ed.D. programs. Nine or 10.1 percent of the responses from all Ph.D. programs indicated that no specified number of hours was required outside the field for a candidate to earn his degree. Four or 4.4 percent of responses from all Ed.D. programs also indicated no specific requirement for this particular facet of doctoral study in Education. In addition, 47 or 52.8 percent of Ph.D. programs left the decision, as to the need for this requirement, to the individual department. Ed.D. programs revealed a very similar trend with 46 or 51.2 percent of all such programs reporting that this requirement varied with the department and the student's committee.

As shown in Table 44, the requirement for all Ph.D. programs ranged from 0 to 38 hours, with the median being 15 hours and the mean being 14.1 hours. The range and the median for all Ed.D. programs were identical but the mean shifted to 15.5 hours. At the Old Institutions, the Ph.D. requirement again ranged from 0 to 38 hours with the median standing at 14 hours and the mean at 14.4 hours. For the Ed.D. programs at these institutions, the range was the same as that for Ph.D. programs and the median and mean were approximately one hour greater, standing at 16 and 15.4 hours respectively.

There were some perceptible shifts noted at the New Institutions. The range was considerably reduced for both Ph.D. and Ed.D. programs. The new ranges were 8-24 hours for Ph.D. programs and 8-25 hours for Ed.D. programs. The mean and median in both Ph.D. and Ed.D. programs had also moved slightly upward. From those data it would appear that the New Institutions had modeled this particular requirement very much along the more common practices prevalent at the Old Institutions. Nevertheless, it must be again emphasized that less than one-half of the programs of either degree in the New Institutions specified a minimum number of hours to be taken by the student outside of the field of professional Education to fulfill his requirements for a doctorate. Nine or 40.9 percent of the Ph.D. programs and eight or 42.1 percent of the Ed.D. programs in these institutions indicated that this particular requirement varied with individual departments, and often the final decision rested with the student's committee.

MAJORS AND MINORS

Closely related to the semester hour requirement for work to be taken both within the Education unit and outside of it, were the policies laid down by the various programs as to what constituted major and minor areas of study, as well as cognate work.

Doctoral programs in Education varied considerably in the requirements for majors and minors. Responses to the questionnaire revealed two basic patterns, which were utilized by the majority of the doctoral programs. First, a major and a minor in Education plus cognate work were required of students in order to earn the doctorate; and second, the doctorate could be earned in a number of institutions without formal requirements as to major and/or minor fields. In addition, data on other possible combinations were obtained and analyzed.

As indicated in Table 45, 47 or 52.8 percent of all Ph.D. programs and 40 and 44.5 percent of all Ed.D. programs had a set requirement of a major and a minor in Education plus cognate work in order to earn the doctorate. The picture in the Old Institutions closely resembled that of the All Institutions with regard to this requirement. In the New Institutions, however, it was interesting to note that the Ph.D. programs gave much greater stress to this particular requirement, 63.8 percent reporting that this practice was adhered to in their institutions. On the other hand, there was a slight falling-off in this regard among the Ed.D. programs operating in the New Institutions with a shade over two-fifths of the programs utilizing this practice. As indicated above, the second most common response to the nature of this requirement was that of no major or minor. Ten programs or 11.2 percent of all Ph.D. programs and 12 or 13.3 percent of all Ed.D. programs reported no formal requirements as to majors and minors.

The remaining categories indicated in Table 45 reflected specific statements by certain institutions. When making these statements, these institutions also indicated that the choices given in the questionnaire were not applicable to their programs. Furthermore, 3.4 percent of all Ph.D. programs and 5.6 percent of all Ed.D. programs reported that any such requirement varied with the department. Similar patterns were noted for the Old Institutions; while, at the New Institutions, a somewhat higher percent of Ph.D. programs left the requirement to the department, with a somewhat smaller percent of Ed.D. programs doing the same.

TABLE 45

REQUIREMENTS FOR MAJOR AND MINORS

Requirement	Old Institutions Ph.D.	%	Ed.D.	%	New Institutions Ph.D.	%	Ed.D.	%	All Institutions Ph.D.	%	Ed.D.	%
Major and Minor in Education Plus Cognate	33	49.2	32	45.2	14	63.8	8	41.9	47	52.8	40	44.5
No Major or Minor Required	10	14.9	11	15.5	–	–	1	5.3	10	11.2	12	13.3
Major and Minor in Education Only	4	6.0	11	15.5	3	13.7	3	15.8	7	7.9	14	15.6
Choice of Major & Minor in Ed. With or Without Cognate	3	4.5	3	4.2	1	4.5	1	5.3	4	4.5	4	4.4
Major Plus Minor or Cognate	4	6.0	2	2.8	1	4.5	–	–	5	5.6	2	2.2
Major Only	3	4.5	–	–	1	4.5	2	10.5	4	4.5	2	2.2
Major Plus 2 Minors	1	1.5	–	–	–	–	1	5.3	1	1.1	1	1.1
Major Plus Cognate	1	1.5	1	1.4	1	4.5	–	–	2	2.3	1	1.1
Major Plus 2 Cognates	–	–	–	–	–	–	1	5.3	–	–	1	1.1
Major Plus 6 Minors	–	–	1	1.4	–	–	–	–	–	–	1	1.1
Varies	2	3.0	4	5.6	1	4.5	1	5.3	3	3.4	5	5.6
No Response	6	8.9	6	8.4	–	–	1	5.3	6	6.7	7	7.8
Total	67	100.0	71	100.0	22	100.0	19	100.0	89	100.0	90	100.0

TABLE 46

RESTRICTION OF COURSE WORK

Restriction	Old Institutions Nr. Of Inst.	%	New Institutions Nr. of Inst.	%	All Institutions Nr. of Inst.	%
Courses for Doctoral Students Only	24	28.9	12	40.0	36	31.9
Courses for Doctoral and Master's Students	70	84.3	28	93.3	98	86.7
Courses for Doctoral, Master's, and Undergraduate Students	23	27.7	1	3.3	24	21.2
Only Courses for Doctoral Students Only	3	3.6	1	3.3	4	3.5
Only Courses for Doctoral and Master's Students	44	53.0	17	56.8	61	54.0
Only Courses for Doctoral, Master's and Undergraduate Students	8	9.6	–	–	8	7.1
Courses for Doctoral Only Plus Doctoral and Master's Students	11	13.3	1	3.3	12	10.6
Courses for Doctoral and Master's Plus Doctoral, Master's, and Undergraduate Students	5	6.0	–	–	5	4.4
Courses for all 3 groups	10	12.1	10	33.3	20	17.7
No Response	2	2.4	1	3.3	3	2.7

Some difference between the two degrees regarding cognate work was to be noted within this requirement. Ph.D. programs showed a distinct tendency to stress this stipulation for doctoral study more than did Ed.D. programs. This difference probably reflected the continuing controversy between those educators who advocated specialization in advanced graduate study, and those who pressed for students to be afforded opportunities to gain greater "breadth" in their doctoral studies. It would be wrong to assume, however, that there was a clear-cut division between the Ph.D. and Ed.D. degrees with regard to cognate work. Both types of programs indicated both the presence and the absence of this requirement within doctoral study in Education.

RESTRICTION OF COURSE WORK

Courses studied to meet the requirements of the doctoral program generally fall into three groups. First, there are specialized courses which are restricted to doctoral students only. Second, there are general graduate courses which are open to both doctoral and master's students. Third, there are courses which may be taken not only by doctoral and master's students but also by certain undergraduate students, usually seniors.

The manner in which an institution structures these groups, or combinations of them, will in large measure will be dependent upon the development of the doctoral program. As shown in Table 46, the most common form of restriction was the course for doctoral and master's students only. This was practiced in 98 of the participating institutions, which represented 86.7 percent of the group. Courses for doctoral students only, were offered in 36 institutions or 31.9 percent of the Participating Group. Courses for doctoral, master's and undergraduate students appeared in 24 or 21.2 percent of the institutions. The above figures refer to All Institutions of the Participating Group in every instance.

A very similar picture emerged with the Old Institutions but some perceptible shifts were noted with regard to the New Institutions. Although the rank order for these restricted offerings remained unchanged, a considerable change of emphases was noted. Only one of these institutions out of a possible 30 offered the combination of doctoral, master's and undergraduate students within a given course. Twenty-eight of the institutions or 93.3 percent of them used the doctoral and master's students combination, while the number of New Institutions offering the course for doctoral students only was 12 or 40.0 percent of this particular group of colleges.

Obviously institutions could offer one or more of the above types of course, as well as a number of possible combinations of them. Under the distribution breakdown in Table 46, it was noted that more than one-half of institutions, of all three categories, offered only courses for doctoral and master's students. The next most popular offering was for an institution to have courses available of all three types. That meant a doctoral student might have a choice of courses for doctoral students only, for doctoral and master's students only, or for doctoral, master's and undergraduate students. About one-fifth of All Institutions had such an arrangement. Whereas this was the case in 12.1 percent of Old Institutions, it had jumped to 33.3 percent among the New Institutions. If it is a final objective of institutions that doctoral study should be regarded as an entity unto itself and that courses be restricted to doctoral students only, this was far from apparent from the data obtained in this study. Only four institutions among the Participating Group offered courses for doctoral students alone to the exclusion of the other types or combinations of all three.

CORE COURSES

Another type of curricular requirement was that related to the course work dealing with the core or tool subjects that are common to doctoral programs in Education. This consideration did not include the foreign language requirement, which is treated separately in the next section of this chapter.

Table 47 revealed that two colleges, both Old Institutions, had no core courses. A further three, again Old Institutions, reported that no core courses were specified, while nine others (seven Old and two New) stated that they did have a group of core courses but what those courses were was determined by the individual department. Where specific courses were stated, it was observed that four were required by more than one-half of All Institutions. These were, in descending order of rank, educational research, educational statistics, educational psychology and philosophy of education. Next in line stood history of education, which was required in 46.0 percent of All Institutions but in 53.3 percent of New Institutions. Although rank order of core courses required remained remarkably consistent through all three categories of institutions, it was worthy of note that a higher percent of the New Institutions required the particular course in each of the first seven ranked courses.

TABLE 47

CORE OR TOOL SUBJECTS REQUIRED

Subject	Old Institutions Nr. of Inst.	%	New Institutions Nr. of Inst.	%	All Institutions Nr. of Inst.	%
Educational Research	57	68.7	23	76.7	80	70.8
Educational Statistics	52	62.7	23	76.7	75	63.4
Educational Psychology	44	53.1	17	56.7	61	54.0
Philosophy of Education	40	48.2	17	56.7	57	50.4
History of Education	36	43.4	16	53.3	52	46.0
Administration and Supervision	18	21.7	8	26.7	26	23.0
Educational Sociology	15	18.1	6	20.0	21	18.6
Guidance and Counseling	13	15.7	4	13.3	17	15.0
Curriculum	8	9.6	4	13.3	12	10.6
Foundations of Education	5	6.0	4	13.3	9	8.0
Computer Programming	6	7.2	1	3.3	7	6.2
Practicum	1	1.2	1	3.3	2	1.8
Behavioral Sciences	1	1.2	–	–	1	0.9
Historical Criticism	1	1.2	–	–	1	0.9
Humanities	1	1.2	–	–	1	0.9
Urban Education	1	1.2	–	–	1	0.9
Varies	7	8.4	2	6.7	9	8.0
None Specified	3	3.6	–	–	3	2.7
No Core Courses	2	2.4	–	–	2	1.8
No Response	5	6.0	2	6.7	7	6.2

FOREIGN LANGUAGE REQUIREMENT

Closely related to the core or tool subjects required, considered in the previous section of this chapter, was the foreign language requirement. This particular feature of doctoral study in Education, along with possible waivers of this requirement and the measuring of foreign language competency, will be dealt with in this section.

Ed.D. Programs

As was expected, most Ed.D. programs did not require a foreign language.[4] As shown in Table 48, 75 or 83.3 percent of all Ed.D. programs in All Institutions had no such requirement. Virtually an identical picture prevailed at both the Old Institutions and the New Institutions, each recording more than 80 percent against such a requirement. The next largest group were the institutions which required a reading competency of one foreign language, which could be waived. This group constituted slightly less than five percent of all Ed.D. programs, with a similar percent noted for both the Old Institutions and the New Institutions. The remaining groups were either very small or non-existent. It was apparent that the foreign language requirement had been all but eliminated as part of an Ed.D. degree.

Ph.D. Programs

The most common requirement for foreign language competency in Ph.D. programs was that of reading competency of two foreign languages, one of which may be waived. Twenty-three or 25.8 percent of All Institutions offering Ph.D. programs reported this policy. A similar proportion of both Old Institutions and New Institutions reported this practice. Second in order, and somewhat contrary to popular belief with regard to Ph.D. program requirements, were those institutions which had no language requirement. This was reported by more than one-fifth of all participating institutions, and the picture holds true for both Old and New Institutions. In addition to these, another eight institutions indicated that although they had a reading competency in one foreign language as a requirement, it was possible to waive this. This meant that close to one-third of all Ph.D. programs had either no language requirement or indicated that such a requirement could be waived.

Third in order of Ph.D. programs requiring students to demonstrate competency in a foreign language, were those institutions which reported a policy of requiring reading competency in one foreign language with no waiver possible. This applied to 17 or 19.1 percent for all Ph.D. programs with both Old and New Institutions adhering closely to this pattern.

There were eight institutions, five old and three new, in which there was no institutional policy regarding the method of meeting the foreign language requirement. The decision was left to the department.

Two features of Ph.D. programs emerged as the result of the analysis of these data regarding the foreign language requirement. First, the programs were generally traditional in their policies for meeting the foreign language requirement; and second, and seemingly running counter to the previous feature, there was an apparent move to eliminate the foreign language requirement.[5]

[4]Springfield College did not require a foreign language for the D. P. E. degree.

[5]Some further support for this finding was evidenced in a 1968 study by Larry A. Schmalenberger, "A Study of the Changes Made in Doctoral Foreign Language Requirements During a Ten Year Period in Ninety-Two Colleges and Universities Offering the Doctorate in the Field of Education." (Unpublished Master's thesis, Department of Higher Education, Southern Illinois University, 1968), 71 pp.

TABLE 48

MEETING FOREIGN LANGUAGE REQUIREMENT

Requirement	Old Institutions Ph.D.	%	Ed.D.	%	New Institutions Ph.D.	%	Ed.D.	%	All Institutions Ph.D.	%	Ed.D.	%
No Language Requirement	16	23.9	59	83.1	5	22.7	16	84.2	21	23.6	75	83.3
Reading Competency of One Foreign Language (No Waiver)	12	17.9	1	1.4	5	22.7	–	–	17	19.1	1	1.1
Reading Competency of One Foreign Language (waiver Possible)	7	10.4	3	4.2	1	4.6	1	5.3	8	9.0	4	4.5
Reading Competency of Two Foreign Language (No Waiver)	1	1.5	–	–	1	4.6	–	–	2	2.3	–	–
Reading Competency of Two Foreign Languages (One May Be Waived)	18	26.9	–	–	5	22.7	–	–	23	25.8	–	–
Reading Competency of Two Foreign Languages (Both May Be Waived)	7	10.4	1	1.4	2	9.1	–	–	9	10.1	1	1.1
Varies	5	7.5	1	1.4	3	13.6	2	10.5	8	9.0	3	3.3
No Response	1	1.5	6	8.5	–	–	–	–	1	1.1	6	6.7
Total	67	100.0	71	100.0	22	100.0	19	100.0	89	100.0	90	100.0

TABLE 49

POSSIBLE WAIVERS

Waivers	Old Institutions Ph.D.	%	Ed.D.	%	New Institutions Ph.D.	%	Ed.D.	%	All Institutions Ph.D.	%	Ed.D.	%
Statistics	30	44.8	9	12.7	9	40.9	3	15.8	39	43.8	12	13.3
Computer Programming	20	29.9	6	8.5	5	22.7	2	10.5	25	28.1	8	8.9
Research Methods	7	10.5	3	4.2	2	9.1	1	5.3	9	10.1	4	4.4
Cognate Field	3	4.5	1	1.4	1	4.5	–	–	4	4.5	1	1.1
Historiography	2	3.0	1	1.4	1	4.5	–	–	3	3.4	1	1.1
Mathematics (Calculus)	2	3.0	1	1.4	–	–	–	–	2	2.2	1	1.1
Philosophical Methods	2	3.0	1	1.4	–	–	–	–	2	2.2	1	1.1
Accounting	1	1.5	1	1.4	–	–	–	–	1	1.1	1	1.1
Adv. Research Methods	2	3.0	–	–	–	–	–	–	2	2.2	–	–
Another Minor	–	–	–	–	2	9.1	–	–	2	2.2	–	–
High Reading Comp. in 1 F. L.	1	1.5	–	–	1	4.5	–	–	2	2.2	–	–
School Law	1	1.5	1	1.4	–	–	–	–	1	1.1	1	1.1
Social Psychology	1	1.5	1	1.4	–	–	–	–	1	1.1	1	1.1
Native Speaking Competency	–	–	–	–	1	4.5	–	–	1	1.1	–	–
By Application	1	1.5	–	–	1	4.5	–	–	2	2.2	–	–

Possible Waivers

Table 49 indicated the possible alternatives which could result in all or part of the foreign language requirement being waived. The most frequently used waiver for a foreign language was statistics, with computer programming being next. This was true for all degree programs.

More than 60 percent of the Ph.D. programs at the New Institutions used these two waivers, while more than 70 percent of the Ph.D. programs at the Old Institutions and at All Institutions used them. These two waivers were also the most frequently employed in the few Ed.D. programs which had need to establish such substitutes for the foreign language requirement. The remaining waivers listed in Table 49 were found at only a few institutions.

It was interesting to note that statistics and research methods were possible waivers for foreign languages and were also included in Table 47. Apparently, those who considered these alternatives as waivers did not regard them either as a core subject or as an alternative for some other core subject.

Traditionally, the foreign languages usually accepted for the foreign language requirement were French and German. Other languages would, therefore, constitute possible waivers but no institution made such a report. The determination of a particular language also raised question with regard to a foreign student proficient in his native tongue and demonstrating competence in English, while meeting normal academic standards in his field of study. Would he, in effect, have met the requirement of a foreign language as part of his doctoral study?

Measuring Foreign Language Competence

A number of possible methods are available to institutions in order to measure a student's proficiency in a foreign language. In the Current Study the respondents were asked to indicate which method was practiced in their respective institutions. As shown in Table 50, eight different possibilities were reported.

The most frequent method reported was that of the Educational Testing Service Foreign Language Examination. More than one-third of both All Institutions and Old Institutions used this instrument, and 26.7 percent of the New Institutions also reported that they used this examination. Unseen translation and prepared translation were next in order of preference as methods of evaluating a student's proficiency in handling a foreign language. These were usually of local origin, in that the foreign language department was responsible for preparing the examinations and for determining if the student had demonstrated competency. An unseen passage for translation was one given to the student at the time of the examination for translation. In some cases, however, the examiner would approve one or more foreign language books in the student's major field. The student would be requested to practice translating from these books. At a specified time, the examiner would

give the student several passages from these books to translate as the foreign language examination. This was termed a prepared translation. Often there was a combination of these, in which the student translated certain passages from approved books and also translated certain unseen passages selected by the examiner. The unseen alone alternative was by far the more common and this held true for both All Institutions and Old Institutions. New Institutions not only did not offer prepared translations at all, but also placed the unseen translation on an equal footing with the Educational Testing Service Foreign Language Examination. The latter two methods accounted for more than one-half of the New Institutions means by which foreign language competency was measured.

Table 50 also indicated that some institutions gave the student a choice of the type of examination to take. These included a choice between an unseen translation and the E.T.S. examination as well as a choice between a prepared translation and the E.T.S. examination. Interestingly, no institution indicated that it offered a choice between a prepared translation and an unseen one.

It was also noted that some institutions permitted a certain amount of satisfactory course work to be accepted in lieu of the foreign language requirement. In these cases, it was assumed that a satisfactory performance in these would be sufficient to meet the standard necessary to fulfill the foreign language requirement. In other situations, it was necessary to receive tuition in a prescribed non-credit foreign language course designed to prepare the doctoral student for his foreign language examination. He would present himself for the latter at the conclusion of his course or at some point during the course when he felt ready for the examination. Satisfactory performance throughout the course, as well as in the additional foreign language examination, was necessary for this requirement to be fulfilled as part of the doctoral program.

EXAMINATION PROGRAMMING

This section deals with the customary major examinations which characterize doctoral study. Examinations in this analysis refer only to major assessment of the candidate at critical stages in the program and do not include course end examinations.

Admission Examinations

As indicated in Table 30 in Chapter IV, most institutions in the Current Study utilized some form of entrance examination for admission to study. Little difference was noted between the Ph.D. and Ed.D. programs using admission examinations and more than 90 percent of all degree programs used admission examinations.

Intermediate Examination

Some institutions gave an intermediate examination and this was both prior to and in addition to the candidacy examination. It was normally administered at the end of the first year of advanced graduate work. More than 40 percent of Ph.D. programs utilized some form of inter-

TABLE 50

MEASURING FOREIGN LANGUAGE COMPETENCY

Method	Old Institutions		New Institutions		All Institutions	
	Number	Percent	Number	Percent	Number	Percent
E.T.S. Foreign Language Examination	31	37.4	8	26.7	39	34.5
Unseen translation	12	14.5	8	26.7	20	17.7
Prepared translation	4	4.8	–	–	4	3.5
Choice between unseen trans. & E.T.S. Exam	7	8.4	2	6.7	9	8.0
Choice between prepared tran, & E.T.S. Exam	2	2.4	1	3.3	3	2.7
2 years of college study with satisfactory grade	3	3.6	–	–	3	2.7
Satisfactory performance in prescribed F.L. course	2	2.4	–	–	2	1.8
6 sem. hrs. of graduate credit in F.L.	1	1.2	–	–	1	0.9

mediate examination, while the corresponding proportion of Ed.D. programs following this practice was a shade above one-third.[6]

As indicated in Table 51, when this form of examination was used, it was most frequently both oral and written in case of the Ph.D. programs, and written in the Ed.D. programs. A switch of format was seen in the next most utilized approach; namely, the Ph.D. programs favored the written examination as the second choice for an intermediate examination, while Ed.D. programs used the oral and written alternative. It was noted, however, that while more than 20 percent of Ph.D. and Ed.D. programs at the New Institutions gave both oral and written examinations, the percentages of the programs utilizing any particular form were generally less than 20 percent, and sometimes less than ten percent. It should be stressed, however, that more than one-half of all programs in all categories of institutions did not use the examination.

Candidacy Examination

Some form of candidacy examination was administered as a part of nearly every doctoral program at institutions in the Current Study. Slightly less than 90 percent of all Ph.D. and all Ed.D. programs used some form of candidacy examination.[7] Although no statements were made by the institutions which did not use a candidacy examination, it was assumed that they had some other means of determining whether or not a student was to be admitted to degree candidacy.

The most common form that the candidacy examination took was that of the combination of both written and oral. More than one-half of Ph.D. programs used this approach in both the Old Institutions and the New Institutions. A significant difference was reported, however, in the case of the Ed.D. programs. Whereas in the Old Institutions, 42.3 percent administered the combined oral and written candidacy examination, there was a marked upsurge to 63.2 percent for the Ed.D. candidacy examination using this format in the New Institutions.

The next most frequently used type of the candidacy examination was the written form. About one-quarter of the Ed.D. programs favored this screening method, while slightly less than 20 percent of Ph.D. programs utilized this approach. The pattern remained reasonably constant for both Ph.D. and Ed.D. programs in either category of institution for this form of candidacy examination.

The oral examination, as indicated in Table 52, constituted only a small portion of the degree programs. There were also 15 degree programs in which a choice between oral and written was indicated. It was generally concluded that this choice would be dependent upon a number of factors and would be made by the student and the members of his doctoral committee. However, there were some institutions which specifically indicated that responding in this manner meant that the candidacy examination was written and then an oral examination was given in cases where the written examination was not particularly satisfactory. Another group of institutions reported that both types of candidacy examination were utilized in the same institution.

Final Examination

The final examination was that given at the end of all doctoral work, including the dissertation. As indicated in

TABLE 51

TYPE OF INTERMEDIATE EXAMINATION

Type	Old Institutions N = 67 Ph.D.	%	Old Institutions N = 71 Ed.D.	%	New Institutions N = 22 Ph.D.	%	New Institutions N = 19 Ed.D.	%	All Institutions N = 89 Ph.D.	%	All Institutions N = 90 Ed.D.	%
Written	12	17.8	13	18.4	2	9.1	1	5.3	14	15.7	14	15.6
Oral	3	4.5	3	4.2	–	–	1	5.3	3	3.4	4	4.4
Both	10	15.0	8	11.3	6	27.3	4	21.1	16	18.0	12	13.3
Choice	3	4.5	3	4.2	2	9.1	2	10.5	5	5.6	5	5.6
No Response	3	4.5	2	2.8	–	–	–	–	3	3.4	2	2.2
No Intermediate Examination	36	53.7	42	59.1	12	54.5	11	57.8	48	53.9	53	58.9

[6]Springfield College did not use an intermediate examination.

[7]Springfield College used a candidacy examination that was both written and oral.

TABLE 52

TYPE OF CANDIDACY EXAMINATION

Type	Old Institutions N = 67 Ph.D.	%	Old Institutions N = 71 Ed.D.	%	New Institutions N = 22 Ph.D.	%	New Institutions N = 19 Ed.D.	%	All Institutions N = 89 Ph.D.	%	All Institutions N = 90 Ed.D.	%
Written	12	17.9	19	26.8	4	18.1	4	21.0	16	18.0	23	25.6
Oral	6	9.0	8	11.3	–	–	–	–	6	6.7	8	8.8
Both	35	52.2	30	42.3	13	59.1	12	63.2	48	53.9	42	46.7
Choice	5	7.5	5	7.0	3	13.6	2	10.5	8	9.0	7	7.8
Not Specified	–	–	1	1.4	1	4.6	–	–	1	1.1	1	1.1
No Response	2	3.0	2	2.8	–	–	–	–	2	2.3	2	2.2
No Candidacy Examination	7	10.4	6	8.4	1	4.6	1	5.3	8	9.0	7	7.8

TABLE 53

TYPE OF FINAL EXAMINATION

Type	Old Institutions N = 67 Ph.D.	%	Old Institutions N = 71 Ed.D.	%	New Institutions N = 22 Ph.D.	%	New Institutions N = 19 Ed.D.	%	All Institutions N = 89 Ph.D.	%	All Institutions N = 90 Ed.D.	%
Comprehensive												
Written	5	7.5	6	8.4	1	4.6	3	15.7	6	6.7	9	10.0
Oral	10	14.9	10	14.1	2	9.1	1	5.3	12	13.5	11	12.2
Both	8	11.9	8	11.3	5	22.7	2	10.5	13	14.6	10	11.1
Varies	1	1.5	1	1.4	1	4.6	1	5.3	2	2.3	2	2.2
No Response	1	1.5	1	1.4	–	–	–	–	1	1.1	1	1.1
No Comprehensive	42	62.7	45	63.4	13	59.0	12	63.2	55	61.8	57	63.4
Covers Dissertation Only												
Written	–	–	–	–	–	–	–	–	–	–	–	–
Oral	50	74.6	55	77.4	17	77.2	13	68.4	67	75.3	68	75.6
Both	3	4.5	4	5.6	3	13.6	4	21.1	6	6.7	8	8.9
Varies	1	1.5	1	1.4	–	–	–	–	1	1.1	1	1.1
No Response	2	3.0	2	2.8	–	–	–	–	2	2.3	2	2.2
Examination not only dissertation	11	16.4	9	12.8	2	9.2	2	10.5	13	14.6	11	12.2

Table 53, slightly more than one-third of Ph.D. and Ed.D. programs administered comprehensive final examinations,[8] which could be written, oral or both. The latter method was favored slightly over oral only in the case of Ph.D. programs. Both forms, however, were used predominantly by New Institutions which administered comprehensive final examinations. Ed.D. programs in All Institutions, utilizing comprehensive examinations, revealed an almost equal leaning to one of the three possibilities open to them, but among the New Institutions the written form of the examination was the most frequent used. It should be stressed that comprehensive examinations covered both the dissertation and all academic work taken.

About 85 percent of the Ph.D. and Ed.D. programs reported that their final examination covered the dissertation only.[9] No institution used only a written final examination to cover the dissertation. The predominant form of this type of final examination was the oral examination. This form was used in 75.3 percent of all Ph.D. programs and in 75.6 percent of Ed.D. programs. Similar percents were noted at the Old Institutions for both Ph.D. and Ed.D. programs. Ed.D. programs at the New Institutions had a somewhat lower percent.

Fourteen doctoral programs indicated that both written and oral examinations were used to cover the dissertation only as their final examination. On the basis of some written statements with responses to this questionnaire item, it was concluded that this response meant the final examination over the dissertation was oral but a written examination could also be administered if the results of the oral examination were not felt to be satisfactory.

No Final Examination

The data indicated that 91.0 percent of all Ph.D. programs and 94.4 percent of all Ed.D. programs had some form of final examination. This meant that not all institutions had final examinations. Specifically, there were eight Ph.D. programs and five Ed.D. programs which did not have some type of final examination.

Some of the institutions indicated that requiring a final examination of any type was optional. By this they meant that there was no institutional policy requiring a final examination and that, if a final examination of some type was administered, it was at the discretion of the student's committee.

TERMINAL RESEARCH PROJECT

Although the terminal research project is considered a training instrument in the techniques of scholarly research and of reporting the findings, it also represents a contribution to the knowledge of a given field. However, the interpretation of what constitutes such a project remains unclear. Such terms as "dissertation," "thesis," "field study," "applied research" appear to be interpreted in as many different ways as there are doctoral programs. This section considers the findings of the Current Study regarding the terminal research project.[10]

Satisfying the Terminal Research Project

As shown in Table 54, 96.6 percent of all Ph.D. programs and 91.1 percent of all Ed.D. programs were described as permitting a formal dissertation as the only acceptable terminal research project. A very similar pattern was seen in both Old and New Institutions but it was interesting to note that the final dissertation only requirement did fall to 88.7 percent in the Ed.D. programs in the Old Institutions, while at the same time the New Institutions,

TABLE 54

SATISFYING TERMINAL RESEARCH PROJECT

	Old Institutions				New Institutions				All Institutions			
Type of Project	Ph.D.	%	Ed.D.	%	Ph.D.	%	Ed.D.	%	Ph.D.	%	Ed.D.	%
Formal Dissertation	64	95.5	63	88.7	22	100.0	19	100.0	86	96.6	82	91.1
Field Study Report	–	–	–	–	–	–	–	–	–	–	–	–
Choice	2	3.0	6	8.5	–	–	–	–	2	2.3	6	6.7
No Response	1	1.5	2	2.8	–	–	–	–	1	1.1	2	2.2
Total	67	100.0	71	100.0	22	100.0	19	100.0	89	100.0	90	100.0

[8]Springfield College does not give a comprehensive final examination.

[9]Springfield College uses both an oral and written final written examination over the dissertation.

[10]Springfield College requires a formal dissertation as the terminal research project for the D.P.E. degree.

without exception in either degree, required the formal dissertation as the terminal research project.

Another striking feature of this requirement of doctoral study in Education was that no institution whatsoever permitted a field study report as the only terminal research project available to candidates. There was some lessening of this position, however, as two Ph.D. programs and six Ed.D. programs did report that a choice between a formal dissertation or a field study report was possible in their institutions.

Other Factors Related to the Terminal Research Project Proposal Written Under Supervision

As shown in Table 55, 96.4 percent of All Institutions reported that the research proposal was written under supervision, a situation that was true for all the New Institutions. One institution reported that this varied with the department and the nature of the research proposed. One institution indicated that the proposal was not written under supervision.

TABLE 55

RESEARCH PROPOSAL WRITTEN BY STUDENT UNDER SUPERVISION

Response	Old Institutions No.	%	New Institutions No.	%	All Institutions No.	%
Yes	79	95.2	30	100.0	109	96.4
No	1	1.2	–	–	1	0.9
Varies	1	1.2	–	–	1	0.9
No Response	2	2.4	–	–	2	1.8
Total	83	100.0	30	100.0	113	100.0

Research Within the Instructional Program

Table 56 showed that 42.5 percent of All Institutions required that the dissertation research be an outgrowth of the student's instructional program. This position held true in 38.6 percent of the Old Institutions and in 53.3 percent of the New Institutions.

On the other hand, 43.4 percent of All Institutions stated that the dissertation research did not have to be an outgrowth of the student's instructional program. Forty-seven percent of the Old Institutions subscribed to this view, but only one-third of the New Institutions reported in this manner. Ten institutions indicated that a choice was possible. These institutions reported that, in some cases, the choice of the direction of the dissertation research depended upon the student and his committee. In other cases, it was indicated that, in general, the dissertation evolved from the instructional program but that it was permissible to go outside of the instructional program for the research if that were necessary for the study.

TABLE 56

DISSERTATION RESEARCH AN OUTGROWTH OF INSTRUCTIONAL PROGRAM

Response	Old Institutions No.	%	New Institutions No.	%	All Institutions No.	%
Yes	32	38.6	16	53.3	48	42.5
No	39	47.0	10	33.3	49	43.4
Choice	8	9.6	2	6.7	10	8.8
No Response	4	4.8	2	6.7	6	5.3
Total	83	100.0	30	100.0	113	100.0

Basis of Final Examination

The questionnaire inquired if the dissertation formed the basis of the final examination. As indicated in Table 57, the dissertation content did form the basis of the final examination in 90.3 percent of All Institutions with a very close picture being reported for both Old and New Institutions. Only 6.2 percent of All Institutions reported that the dissertation did not form the basis of the final examination, while one institution reported that this varied with the area of study and the nature of the research.

TABLE 57

DISSERTATION CONTENT FORMS BASIS OF FINAL EXAMINATION

Response	Old Institutions No.	%	New Institutions No.	%	All Institutions No.	%
Yes	74	89.2	28	93.3	102	90.3
No	5	6.0	2	6.7	7	6.2
Varies	1	1.2	–	–	1	0.9
No Response	3	3.6	–	–	3	2.6
Total	83	100.0	30	100.0	113	100.0

Summary

Diversity in curricular requirements among the institutions was more the keynote than similarity. Nevertheless, it was apparent that certain general trends did appear while at the same time interesting shifts in practices employed by the New Institutions as distinct from policies operating in the Old Institutions were observed.

The semester credit hour system was used in nearly 70 percent of All Institutions, while the quarter system operated in over one-quarter of the institutions.

The minimum number of semester hours required for the Ph.D. degree ranged from 42 to 96 hours, with a median of 76 hours and a mean of 75.7 hours. Minimum requirements for the Ed.D. degree ranged from 60 to 99 hours, with a median of 87 hours and mean of 82.2 hours. Little difference was reported for policies operating in the Old and New Institutions.

The minimum hours (including the dissertation) beyond the master's degree required for the Ph.D. degree ranged from 18 to 90 hours, with the median being 54 hours, and the mean being 49.4 hours. In the case of the Ed.D., the minimum number of hours beyond the master's ranged from 18 to 90 hours with a median of 58 hours and a mean of 51.8 hours. New Institutions required about five hours more than Old Institutions for both degrees and the range of hours was considerably reduced in both degrees, the Ed.D. programs reported a range of 44 to 66 hours required beyond the master's degree to earn the doctorate.

The minimum transferrable hours permitted for the Ph.D. ranged from 0 to 60 hours, with the median being 31 hours and the mean being 32.5 hours. The Ed.D. programs permitted a maximum of transferable hours ranging from 0 to 64 hours, with a mean of 36.5 hours and a median of 36 hours. Although the picture remained very constant for both degrees at the Old Institutions as well as for the Ph.D. degree in New Institutions, the Ed.D. program in the New Institutions had raised the mean of transferable hours perceptibly to 42.0 hours.

More than 95 percent of both Ph.D. and Ed.D. programs in All Institutions required some type of residence. There was a wide range of interpretation among the institutions as to what constituted "residence."

The maximum time for degree completion ranged from one to ten years, with the median being six years and the mean being 6.3 years. The estimated average time for degree completion ranged from two to ten years, with the median being four years and the mean 4.1 years.

The minimum number of hours required in professional Education courses in Ph.D. programs ranged from 0 to 58 hours, with a mean of 32.8 hours and a median of 36 hours. Ed.D. programs reported a range of 0 to 78 hours of required professional Education courses, with a mean of 37.8 hours and a median of 40 hours. Little difference for requirements in Old and New Institutions was noted. However, more than one-quarter of all programs indicated that there was no institutional policy specifying this requirement. In addition, another 17.9 percent of all programs reported that this requirement varied with the area of study.

The minimum semester hours outside the field of Education required for the Ph.D. ranged from 0 to 38 hours with a median of 15 hours and a mean of 14.4 hours. Ed.D. program requirements also ranged from 0 to 38 hours, with the median being 15.5 hours. New Institutions tended to have a narrower range than did Old Institutions, but the general picture for all programs was reasonably constant. It is noteworthy, however, that more than 50 percent of all programs reported that this requirement varied with the area of study.

The most frequent requirement for major and minor fields was a major and a minor in Education *and* a cognate field. This combination was acceptable for slightly more than one-half of Ph.D. programs and 44.5 percent of Ed.D. programs. No major or minor was the next most frequent response for Ph.D. programs but ranked third among Ed.D. programs. A major and a minor in Education ranked second as a requirement for Ed.D. programs and third for Ph.D. programs. These three requirements accounted for 71.9 percent of Ph.D. programs and 73.4 percent of Ed.D. programs.

Courses open to both doctoral and master's students were found at 86.7 percent of the institutions but only 54.0 percent of the institutions used this combination alone. The most frequently offered core courses were educational research, educational statistics, educational psychology, philosophy of education, and history of education. More than 50 percent of the participating institutions had each of these requirements, the lone exception being the history of education offering in Ed.D. programs which stood at 46.0 percent.

Reading competency in two foreign languages, one of which could be waived was the most favored requirement among Ph.D. programs. Nearly one-quarter of Ph.D. programs and virtually no Ed.D. programs had a foreign language requirement. Statistics was the most frequently permitted waiver for a foreign language for both degrees. The next most frequent waiver was computer programming.

Although a number of methods were reported for measuring proficiency in the foreign language, the most frequently used was the Educational Testing Service Foreign Language Examination. The unseen translation was the next most frequent method used.

More than 90 percent of degree programs used some form of entrance examination. About two-fifths of all degree programs used an intermediate examination, normally at the end of the first year of advanced graduate study but before the candidacy examination. Almost 90 percent of all degree programs used some form of candidacy examination,

with about one-half of both degree programs using a written and oral combination.

About 20 percent of all degree programs used a written final examination while about 90 percent used an oral final examination. A little more than one-third of all degree programs used a comprehensive final examination which covered both the dissertation and other material from the instructional program. About 85 percent of all degree programs had a final examination which covered the dissertation only. It was estimated that about seven percent of the programs had no final examination.

More than 90 percent of all degree programs used the formal dissertation as the means for satisfying the terminal research project. No institution reported a field study as the only method for satisfying the terminal project although eight institutions did indicate that a choice might be permitted between such a report and the formal dissertation. At more than 96 percent of the institutions, the research proposal was written by the student under supervision. At about 42 percent of the institutions, the dissertation had to be an outgrowth of the student's instructional program. A slightly greater proportion of institutions permitted the student to select his research area outside the content of his instructional program. Eight percent of the institutions permitted a choice between these alternatives. More than 90 percent of the institutions indicated that the dissertation content formed the basis of the final examination.

CHAPTER VI

RELATED CONDITIONS

Several important considerations, such as personal financing and availability of housing, that impinge upon advanced graduate study are examined and analyzed in this chapter. It should be stressed, however, that these conditions are viewed from the viewpoint of the administrative officer in charge of the Education unit and *not* from that of the doctoral students.

RECRUITMENT

The questionnaire included an inquiry into the types of recruitment practices most frequently employed by the participating institutions. Specifically, institutions were asked if they operated an active program for the recruitment of doctoral students in Education. In addition, they were asked to list what practices they utilized, and to indicate the three most frequent of these. Seventy-seven institutions or 68.1 percent of the Participating Group reported that such a program was used, although apparently it was not always implemented to cover all fields. It would appear to be a departmental decision in a number of institutions. Thirty-four institutions, or 30.1 percent of the Participating Group, reported that they did not have active recruiting programs. Two institutions did not respond to this inquiry.

As indicated in Table 58, seven of the nine practices used for recruiting purposes operated in at least one-quarter of the institutions. Faculty and other personal contacts was the frequent practice, with more than two-thirds of institutions reporting active recruitment programs using this particular approach. The master's program was cited by more than one-half of the respondents, while scholarships, fellowships, and assistantships as well as reliance on reputation and alumni were also well established practices. It would seem that recruitment programs still have as their cornerstone, personal contact and the very real need of advanced graduate students - financial considerations. The printed word, in the form of publications and news stories, has its place but its role is contributory rather than major.

TABLE 58

RECRUITING PRACTICES

Practices[a]	Number of Institutions	Percent of 113
Faculty and Other personal contacts	76	67.3
Master's program	61	54.0
Scholarships, fellowships, assistantships	52	46.0
Reliance on reputation and alumni	49	43.4
Publications	42	37.2
Personal letters	37	32.7
Summer session	30	26.6
News stories	16	14.2
School study council	2	1.8

[a]Institutions were requested to indicate the three most frequent practices. This accounts for the absence of column totals.

FINANCE

Without doubt, one of the primary (in some cases, the major) considerations facing the student embarking upon advanced graduate study, is that of financing his program. At the same time, he has to maintain himself and, in all probability, his family during the period of study. Such considerations as tuition costs and the availability of scholarships, fellowships, and internships are therefore central to his thinking. These facets of doctoral study are considered and analyzed below.

Tuition

As a first step, the questionnaire inquired as to what, in semester hours, constituted a minimum for full-time doctoral study. This question was central to the minimum outlay in tuition costs facing prospective doctoral students. It was also pertinent to the varying approaches used to assess tuition costs by different institutions. Three main patterns were identified – credit-hour rate, a fixed rate for tuition, usually based on a minimum number of credit hours as a floor for assessment; and a graduated or sliding scale, where certain limits were fixed, for example, 10-12 hours – $300; 13-15 hours – $350.

All but five institutions responded to this section of the questionnaire, and the data were analyzed to emphasize the range of tuition conditions at the various institutions, as well as to attempt comparisons between private and public institutions. It was originally intended to make use of the

mean and median in this analysis but this examination tended to result in some very atypical findings, which could not enhance interpretation. As such, these two measures of central tendency were dropped from this analysis.

Responses from participating institutions indicated that the number of minimum credit hours required for full-time doctoral study ranged from four to twelve hours, per semester, the mode being nine hours. As indicated from Table 59, this could mean as little as $142 for an academic year for an in-state resident at a public institution, but an out-of-state student at the same type of institution could be called upon to find tuition costs of $1728 for his studies for the academic year. Understandably, private school tuition costs in the same category could exceed this figure considerably, but in some instances were lower than for in-state students attending public institutions.

TABLE 59

RANGE OF TUITION COST

Type Assessment	Private		Public	
	Resident	Non-Resident	Resident	Non-Resident
Credit Hour	$17-250	$30-250	$9-35	$23-72
Flat Rate	$1475-2350	$1475-2350	$50-880	$200-1680
Graduated	$200-1200	$545-1200	$142-600	$162-1140

Where a fixed rate for tuition costs was established, again private institutions were significantly more expensive than the public institutions. However, as in the case of the credit-hour assessment, there were some instances where the out-of-state student was meeting higher tuition costs than he would at certain private institutions. In the category of the graduated scales for assessing tuition, the picture for both private and public institutions was relatively similar. This may well have been a chance finding, as very few institutions employ this practice for graduate study, although it is reasonably common for tuition costs at the undergraduate level. As was to be anticipated, there was a number of wide discrepancies between the costs facing resident and non-resident students. On the other hand, it was interesting to note that some private institutions did employ such a division. In all such instances, however, the ceiling for tuition costs was identical and what differences were reported were at the lower end of the scale.

Financial Assistance

Doctoral students traditionally seek some form of financial assistance from the institution they are attending. This will normally take the form of a scholarship, fellowship, assistantship or internship. This, in many cases, is a necessity to offset the loss of income during the period of study. In the Current Study, information was sought as to what was available from the institutions themselves. The various sources, outside of the universities and colleges, were not considered. These would be more appropriately dealt with by a study of the graduates of doctoral programs. The emphasis in this study, as stated before, is from the viewpoint of the institution.

One hundred and six institutions, or more than 93 percent of the Participating Group, reported that scholarships were available to doctoral students. Five institutions did not respond to this particular item on the questionnaire. As such, only two institutions indicated positively that they did not have scholarships available.

TABLE 60

FINANCIAL ASSISTANCE (ACADEMIC APPOINTMENTS)

Type of Appointment	No. Available		No. Filled		Compensation Per Academic Yr. (Range)	
	Private	Public	Private	Public	Private	Public
Administrative Assistantship	151	584	151	583	$ 500-5400	$ 200-13600
Research Assistantship	250	2115½	250	2108½	800-5400	200-11000
Teaching Assistantship	148	4571	148	4571	2200-4500	200-8475
Administrative Fellowship	35	350	35	350	2030-3150	300-11100
Research Fellowship	298	554	298	554	1400-7900	300-7000
Teaching Fellowship	191	578	191	578	1350-5400	300-5400
Administrative Internship	28	150	28	150	1500-14000	2180-12000
Research Internship	20	42	20	42	1500-7200	2180-12000
Teaching Internship	6	106½	6	106½	6400	750-13500

Financial assistance in the form of academic appointments is reported in Table 60. These analyses must be considered as incomplete, as not only did thirteen institutions not respond to this section, but those that did, in many instances, could provide only partial information. Apparently, this whole area has become so complex, that deans and departmental chairmen are becoming further and further removed from this facet of doctoral education. Obviously, this area has become such a speciality, that the inquiry for this particular facet should have been directed to the financial aids and scholarships office on the respective campuses. Nevertheless, it would seem that an ever-increasing obligation is being thrust upon advisers to students to be fully aware of what opportunities exist for financial assistance.

As seen from the table, appointments have been broken down into three main categories; assistantships, fellowships; and internships. Each has its own sub-divisions of administrative, research and teaching. One distinct feature which emerged is that, both at private and public institutions, virtually all the appointments available were filled. Another interesting feature was that public institutions almost consistently had higher ceilings for compensation for the academic year, the exceptions being research fellowships and administrative internships, which were higher at private institutions.

There were some surprisingly higher administrative and research assistantships available at public institutions but these were very limited in number. Internships, although the smallest category in terms of numbers, showed a consistently high level of compensation in all divisions of public institutions as well as in the administrative division of private institutions.

As was the case with tuition costs, it was not considered proper to use either the mean or median in this facet of doctoral study in Education. Such figures were very appropriate for an individual institution, but were likely to lead to erroneous findings over a large number of different institutions, particularly when data were either incomplete or missing.

HOUSING

As shown in Table 61, 93 or 82.3 percent of participating institutions indicated that housing was easily located off campus. Nineteen or 16.8 percent of these institutions gave a negative response to this inquiry on the questionnaire. There was only one no response.

The picture shifted considerably when the inquiry sought easy location of housing on campus. In this case only 62, or 54.9 percent of institutions, replied affirmatively, while 45 or about two-fifths indicated positively that housing was difficult to obtain. Among those replying that housing was available, there was the added qualification that this response meant for single students only. Although this applied to only eight institutions, this could have a large bearing on the considerations facing married students, a significant proportion of whom are engaged in doctoral studies.

To the inquiry as to whether housing priority was given to doctoral students, only seven, or 6.2 percent of the participating institutions, indicated that this was the case. However, when asked to follow this response by indicating on what basis such a priority was established, none of these institutions gave a definitive statement. Almost four-fifths of the institutions reported that no priority was given to doctoral students in this regard. In general, this would appear to be the case facing the vast majority of students embarking upon doctoral study.

TABLE 61

HOUSING AVAILABILITY

Response	Easily Located Off Campus		Easily Located On Campus		Priority to Doctoral Students	
	Number of Institutions	Percent	Number of Institutions	Percent	Number of Institutions	Percent
Yes	93	82.3	62	54.9	7	6.2
No	19	16.8	45	39.8	90	79.7
No answer or qualified	1	0.9	6	5.3	16	14.1
Total	113	100.0	113	100.0	113	100.0

DROPOUTS

Probably no more important feature of doctoral study pertains than the reasons why students drop out of doctoral studies. Unfortunately only 21, or 18.6 percent of the participating institutions, indicated that they had carried out studies to investigate the underlying reasons for students having taken this drastic decision. This meant that the responses received to this inquiry were largely "educated guesses" given by an administrative officer. It should be emphasized that the responses were not those of the student himself. One interesting response was the flat statement, "We cannot make a valid statement to this inquiry as we have no empirical evidence upon which to base it." This was probably the most valid response received.

All administrators were requested to indicate what they considered the three major reasons why doctoral candidates did not complete their programs. As shown in Table 62, the reasons were listed in rank order by type of institution. The most frequent three reasons were the same for both private and public institutions, but percentages of these occuring were markedly different. Inadequate personal financing was reported in slightly over three-quarters of public institutions but in less than one-half of private institutions. Nevertheless, this reason was ranked first as a major reason for both types of institutions. Difficulty with the dissertation ranked second in public institutions with more than three-fifths of these reporting in this manner. The same reason was joint first among reasons given in private institutions, but stood at only 46.2 percent among private schools. Job promotion, ranked third in both types of institutions, again showed a discrepancy of proportions reporting this as a reason. While slightly over two-fifths of private institutions reported this reason, more than one-half of public institutions did so. One obvious difference in ranking was the reason "excessive demands on time devoted to non-course duties." Ranked a joint third among private institutions with over two-fifths of the respondents stating this as a major cause for students dropping out of doctoral study, it was only seventh in ranking among public institutions and occurred in slightly over one-quarter of the responses. At the low end of the scale, both types of institutions regarded housing problems and professional relationships of little or no significance among the major reasons for dropping out of programs.

SUMMARY

Slightly more than three-tenths of the participating institutions indicated that they did not have an active recruiting program. Some reported their programs were limited to certain fields only. The three most frequent practices reported were faculty and other personal contacts; the master's program; and fellowship, scholarships, and internships. The first named was reported by more than two-thirds of institutions with active programs.

Tuition costs revealed the expected wide range, whether it was assessed on a credit-hour basis, by a flat rate, or on some sliding graduated scale. Private institutions were pre-

TABLE 62

MAJOR REASONS FOR DROPOUTS

Reasons[a]	Private Institutions			Public Institutions		
	Number	Percent of 39	Rank	Number	Percent of 74	Rank
Inadequate Personal Financing	18	46.2	1	56	75.7	1
Difficulty with Dissertation	18	46.2	1	45	60.8	2
Job Promotions which Precluded Continuation of Doctoral Study	16	41.0	3	40	54.1	3
Excessive Demands on Time Devoted to Non-course Duties	16	41.0	3	19	25.7	7
Recommendation of the Institution (Inadequate Scholarship)	10	25.6	5	32	43.2	5
Academic Pressures	9	23.1	6	35	47.3	4
Family Problems	8	20.5	7	30	40.5	6
Personal Health	4	10.3	8	14	18.9	8
Housing Problems	0	0.0	9	5	6.8	9
Professional Relationships	0	0.0	9	5	6.8	9

[a]Institutions were requested to indicate the three most frequent reasons. This accounts for absence of column totals.

dictably more expensive than public institutions, but there was some overlap where the reverse position was true. Non-resident students in public institutions were in a number of instances paying higher tuition costs than students in private institutions. Surprisingly, some private institutions did enforce non-resident tuition costs, although these were confined to the lower end of the scale.

Over nine-tenths of participating institutions reported that they offered scholarships to doctoral students. Financial assistance, however, was available in the form of assistantships, fellowships, and internships. These were categorized by type of appointment; administrative, research and teaching. Virtually all of these were reported filled. Compensation, both in private and public institutions, was found to cover a very wide range. There were some instances of surprisingly high remuneration. Assistantships, fellowships, and internships were reported in excess of $11,000 for a limited number of applicants. One private institution did report an administrative internship of $14,000 as part of the doctoral program, but generally private institutions reported compensation of a much more modest level.

Availability of housing on-campus proved a problem for at least two-fifths of the respondents. Among those institutions, which did report easy accessibility of housing on campus, there was some indication that single persons had less trouble in obtaining such housing than did married persons. Very few institutions had set up housing priorities for doctoral students in Education.

Twenty-one institutions reported that they had attempted research into the problem of dropouts among doctoral candidates. Inadequate personal financing was reported as the most frequent reason in both public and private institutions. It was reported, however, by more than three-quarters of public institutions but by somewhat less than one-half of private institutions. Difficulty with the dissertation ranked second in both types of institutions. Job promotion, which prevented continuation of doctoral study, was the third most reported reason for dropping out of the program in both public and private institutions. Equally ranked in private schools only, was the excessive demands on time devoted to non-course duties. Housing and professional relationships were reported to offer little or no problem in either type of institution.

CHAPTER VII

CHANGES, NEEDS, AND PROJECTIONS

The Current Study also inquired about significant curricular changes and areas of critical shortage in order to relate them to degree production. This was attempted by means of two open-ended questions. First, the respondents were requested to indicate what significant changes in the doctoral program in Education had been made in the past ten years at their particular institutions. Second, they were asked to list what they felt to be the three most critically needed program expansions or new program developments at that time for which additional persons in the field of Education at the doctoral level were needed.

It was conceded that such responses would represent the opinions and interpretations of the respondents. Nevertheless, it was felt that those responses would give some insight into the thinking of administrators about expanding doctoral production in Education. This chapter considers these administrative opinions. In addition, some attempt is made to consider expectations for doctoral production in the field of Education during the next decade.

A. Significant Curricular Changes

A number of significant curricular changes in the previous ten years were reported by the participating institutions. Some of those changes were not strictly curricular, although were apparently interpreted as such by some administrators. There were 12 institutions, or 10.6 percent, which did not respond to this inquiry. This represented 19 programs.

As shown in Table 63, the significant changes during the previous ten years, as reported by the administrators, were placed into seven categories. The most frequent type of change was program expansion, which accounted for 70.4 percent of participating institutions. The largest number of these expanisons were developments in areas of concentration. The next most frequent type of change concerned general policies and procedures, which occured in 22.9 percent of participating institutions. These were apparently made in order to improve existing programs.

The remaining changes, all of which were reported by less than one-seventh of participating programs, also reflected program modifications designed to improve the doctoral programs. Even the reduction and deletion of programs reflected this in that such action permitted the strengthening of other programs.

TABLE 63

SIGNIFICANT CURRICULA CHANGES
1958-1968

Changes	Nr. of Prog.	Total Prog.	Pct.
Policies and Procedures		41	22.9
Redefine and clarify requirements	11		
Establish a more flexible program	10		
Shift in administrative responsibility	7		
Change length of program	5		
Change admissions policy	4		
Change examination policy	4		
Program Expansions		126	70.4
Developments in areas of concentration	82		
Added doctoral programs	20		
Developments in the doctoral programs	24		
Program Deletions and Reductions		12	6.7
Program deletions	7		
Program reductions	5		
Supporting Requirement		23	12.8
Increase cognate requirement	10		
Develop interdisciplinary studies	7		
Emphasize courses outside education	6		
Practical Experience		14	7.8
Practicums	6		
Internships	6		
On-campus teaching	2		
Research Component		24	13.4
More emphasis on research methodology	12		
More research programs	8		
Emphasize statistics	2		
Emphasize computer methodology	2		
Research Tool Requirement		20	11.2
Alternatives to the foreign language requirement	11		
Elimination of the foreign language requirement	7		
Reduction of the foreign language requirement	2		

Of particular interest in this inquiry were program expansions in the areas of concentration. Eighty-two programs, as indicated in Table 63, had reported such developments. The breakdown of these developments by areas of concentration is reported in Table 64.

TABLE 64

PROGRAM EXPANSIONS IN AREAS OF CONCENTRATION

Area of Concentration	Nr. of Prog.	Pct. of Prog.
Higher Education	11	6.1
Foundations of Education	8	4.4
Administration and Supervision	7	3.9
Curriculum	7	3.9
Psychology	6	3.3
Guidance and Counseling	4	2.2
Measurement	4	2.2
Special Education	4	2.2
Urban Education	3	1.6
Adult Education	1	0.5
Afro-American Education	1	0.5
English Education	1	0.5
Foreign Language Education	1	0.5
Mathematics Education	1	0.5
Reading	1	0.5
Religious Education	1	0.5
Science Education	1	0.5
Secondary Education	1	0.5
Social Science Education	1	0.5
Speech Education	1	0.5
Teacher Education	1	0.5
Vocational Education	1	0.5
Unspecified	15	8.3
Total	82	45.9

Higher education was the most frequently reported area of expansion with foundations of education in second place. It was noted that the areas of administration, and guidance and counseling were in third and sixth places respectively. These were the two areas, which produced the largest number of graduates as reported in Table 19. As such, it might be reasonably inferred that expansion in these areas contributed to the high production of doctorates.

In addition, the information in Table 64 reflected the development of areas in which there were needs for doctoral-trained individuals. There were some indications that these developments were tending to fill some of the anticipated needs in certain areas of concentration noted in the AACTE Study.[1]

B. Most Critically Needed Program Expansion

To determine more precisely the future needs at this time, it would be necessary to conduct a manpower study of the field of Education and to compare the results, both nationally and regionally, with actual degree production by area of concentration. In this way, the needs, both within and without the field of Education, for individuals in Education could be ascertained.

A facet of the determination of future needs would be to find out what the administrators in professional Education felt would be the most critically needed program expansions or program developments in the field of Education at this time. The Current Study attempted to ascertain the thinking of administrators regarding this point.

For the most part, three critical needs were indicated. However, in a number of cases, more than three were given, indicating that the respondents felt that the critical needs, as determined at that time, could not be limited to only three. There were 15 institutions, or 13.3 percent, which did not respond to this inquiry. This represented 21 programs or 11.7 percent.

It was assumed that, in responding to this item, the respondent would consider the broad needs of the field, whether they were national, state, or regional. However, most of the responses to this item seemed to express local needs for the growth and development of the field of Education at their institution. Of course, broad needs would underlie the specific responses of institutional needs. Consequently, the composite of the responses expressed would indirectly imply broader needs.

TABLE 65

THREE MOST CRITICALLY NEEDED PROGRAM EXPANSIONS

Expansions	Number	Percent
Educational Research	37	20.7
Urban Education	27	15.1
Early Childhood Education	23	12.9
Junior and Community College Education	23	12.9

Table 65 showed the three most critically needed program expansions. The most frequently noted need was in educational research, reported by 20.7 percent of partici-

[1]Harold E. Moore, John H. Russel, and Donald O. Ferguson, The Doctorate in Education, Vol. II, The Institutions (Washington, D.C.: American Association of Colleges for Teacher Education, 1960), p. 80.

pating institutions. This inferred plans not only for more research opportunities for doctoral students but also for more full-time research into the problems of Education. The next most frequently indicated need was urban education, reported by 15.1 percent of participating institutions. This response pointed to an awareness of the special educational needs of urban areas, particularly within the inner city. This was reported by nearly all urban located institutions, and also by institutions closely associated with urban areas.

Two areas were reported by the same number of programs and ranked third as a most critical need. These were early childhood education and junior and community college education. Each were reported by 12.9 percent of the participating programs. The area of early childhood education showed a growing concern about developing the capacities of the pre-school child. The area of junior and community college education pointed to the need for teachers and administrators sensitive to this new field of Education.

It would appear that these were the areas which would show promise of gaining more attention in the next decade. Consequently, they might experience proportionally more graduates.

Table 66 showed other critically needed program expansions reported by respondents. This group was headed by higher education and curriculum and instruction, each of which was noted by more than 10 percent of the respondents. These, along with the next three, special education, adult education and learning resources, might show some gain in doctoral production during the next decade.

The remainder might not have a positive effect and, therefore, might actually experience proportionally fewer graduates. This would be particularly true in the existing programs. New programs would, of course, show some gain, though small.

TABLE 66

OTHER CRITICALLY NEEDED PROGRAM EXPANSIONS

Expansions	Number	Percent
Higher Education	22	12.3
Curriculum and Instruction	18	10.1
Special Education	13	7.3
Adult Education	13	7.3
Learning Resources	12	6.7
Educational Psychology	9	5.0
Preparing Collegiate-level Teachers	9	5.0
Prepare Public School Administrators	9	5.0
Interdisciplinary Education	9	5.0
Foundations of Education	8	4.5
Reading	8	4.5
Evaluation of Education	7	3.9
Teacher Education	4	2.2
Vocational Education	4	2.2
Field Experiences as Part of the Doctoral Program	2	1.1
Generalists	2	1.1
Multi-cultural and Bi-lingual Education	3	1.7
Science Education	1	0.6
Miscellaneous	11	6.2

C. Predicted Number of Doctorates in Education

Estimates of doctoral production in the field of Education were initially considered to be an integral part of a survey such as the Current Study. The setting up of such projections, however, must be considered of limited value. A time series is normally extrapolated from current data, but often there is little knowledge of the variables either contributing to or mitigating against the the generation of such data. As such, the formulae derived, correction equations and their application, become little more than mathematical exercises. In addition, the question was raised with regard to the utility of such projections on a national basis for individual institutions with their own peculiar needs. This would apply whether total production of doctorates over the coming decade was considered or if a more specific field, such as areas of concentration, was examined. A given institution may well be interested in national trends, but the direction it follows should be interpreted and determined by an appraisal of its own needs. The above explanation provides a rationale why the questionnaire was not used to elicit meaningful data with regard to expectations of doctoral production in the decade ahead.

One of the investigators, however, did attempt to develop some projections in order to meet the need of those administrators who felt that such information could assist them in their planning. He did stress, however, the limited application of these findings. Sistler based his formula on the period beginning with the AACTE Study and ending with the Current Study, the years included being 1958 through 1969. He analyzed the annual growth rate during this period and noted that it had started to increase. Taking into consideration these factors, he estimated that there would be about 190 percent increase in total doctoral production in Education during the next decade. In addition, he noted that both the AACTE Study and Current Study revealed that 37 percent of the conferred degrees were Ph.D.'s and 63 percent were Ed.D.'s. He concluded, therefore, that the use of these ratio for the projected data would give a relatively accurate picture of the future production of these degrees. Sistler predicted that doctorates would increase from about five thousand

graduates in 1969-70 to more than 13,000 in 1979-80, with a total of slightly less than 100,000 earned degrees for the decade.

However, he questionned whether these estimates were realistic. He cited other sources as indicating that there would be close to 50,000 doctorates conferred in all fields by the end of the next decade. This, in effect, meant that his estimates implied that Education doctorates would comprise 30 percent of the total production. At the present time, these degrees represented about 17 percent of all doctorates conferred. Accordingly, he modified his estimates to a 20 percent level of total production by the end of the decade. On this basis, he estimated doctorates in Education would reach a level in the neighborhood of 10,000 by 1979-1980. The total degree production for the decade would stand at about 80,000. On the basis of this modified formula, this represented a 105 percent increase in doctoral production by the end of the decade.

Summary

A number of significant changes were made during the past ten years at institutions offering doctoral programs in Education. Program expansions were the most frequently reported change, 70% of participating institutions reporting such change. The largest number of program expansions was development in areas of concentration, in which higher education, foundations of education and educational administration received the highest ranks. The next most frequently reported change occurred in modifications of the general policies and procedures affecting doctoral programs in Education. Over one-fifth of respondents reported such policy and procedure modifications.

Several critically needed program expansions or new program developments in the field of Education were reported. The most critically needed expansion was in educational research. This inferred plans not only for more research opportunities for doctoral students but also for more full-time research into the problems of Education. Urban education was the next most cited critically needed program expansion. Early childhood education and junior and community college education were bracketed together as the third most critically needed expansion.

Two projections as to expectations of doctoral production during the next decade were given. The first showed an increase of 190 percent in doctorates in Education and rising to about 30 percent of doctorates conferred in all fields. This estimate was considered to be unrealistically high and a modified formula was applied. This resulted in an estimate of 105 percent increase over the decade. On this basis, it was estimated that about 10,000 doctorates would be conferred in the last year of the decade ahead. Although this meant a steady increase in numbers, it also represented a slowing down of the present annual growth rate of about 9.5 percent per annum to an estimated 6.7 percent in 1979-80.

CHAPTER VIII

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

In March 1969, the Commission on Higher Education of Phi Delta Kappa adopted a motion to bring about, if feasible, the updating of the study THE DOCTORATE IN EDUCATION which was made by the Studies Committee of the American Association of Colleges for Teacher Education in 1958. The Current Study attempts a replication of the institutions phase of the 1956-58 AACTE study covering the original 92 institutions and including new institutions offering the doctoral program in Education. As in the previous survey, the questionnaire method was the primary source of data.

SUMMARY

General

Ninety-eight Ph.D. and 97 Ed.D. programs in 124 institutions, which granted doctoral degrees in Education during the years 1965-69, were identified. Eighty-nine of these institutions were in the AACTE Study and 35 institutions were identified as having introduced doctoral programs since 1958. Three of the original institutions had terminated their programs in the intervening period. Of these 124 institutions, 84 were publicly controlled and 40 were privately controlled. Nearly twice as many Ph.D. programs were offered at public institutions as were operating in private institutions, while Ed.D. programs at public institutions doubled those at private institutions. In the case of institutions offering both the Ph.D. and the Ed.D. degrees, little difference was noted between public and private institutions. The major findings of this study related to 113 of these colleges and universities, which participated by furnishing information about their doctoral programs.

The institutions and the doctoral programs included in the study presented a picture of diversity. The smallest institution employed four full-time Education faculty members, while the largest institution among the respondents had 320 full-time faculty members in the Education unit. Policies regarding part-time personnel within Education units varied considerably. Two-thirds of the responding institutions employed less than 29 such faculty members, whereas as three universities had in excess of 165 faculty members on a part-time basis.

Over one-fifth of Ed.D. programs were administered solely by the College of Education, but more than one-third of these programs came under the control of the Graduate College. A like proportion was administered under a dual arrangement between the two colleges. On the other hand, Ph.D. programs were administered almost entirely by the Graduate College or under a dual arrangement.

Of the 15,140 graduates from the 124 institutions in the Total Group, 2,132 were produced in the state of New York alone; seven other states produced none. The East North Central region was the highest producer, accounting for more than one-fifth of conferred doctorates in Education. The Middle Atlantic was the second largest producer with 19.1 percent of the graduates, whereas the New England region was the lowest producer at 4.1 percent. Only two of the six states in this region had at least one institution offering a doctoral program in Education. About three-fifths of the degrees were granted in institutions east of the Mississippi. Public institutions produced about seven-tenths of the degrees conferred during the four-year period, while about 30 percent were produced by private schools. Of the 15,140 doctorates conferred, 13,694 were produced by the Old Institutions and 1,446 by the New Institutions. Three institutions produced more than 500 graduates, Teachers College, Columbia University, heading the list with 909 degrees for the 1965-69 period. Seven other institutions produced ten or fewer graduates for the same period.

The 113 participating institutions reported a total of 179 Ph.D. and Ed.D. programs offering the degree in Education. One hundred and forty-one programs produced 3,095 graduates in the area of school administration. This area of concentration, together with guidance and counseling, educational psychology, higher education, and elementary education accounted for more than one-half of all the graduates. Thirty areas of concentration were identified in the study. School administration alone accounted for more than one-fifth of the degrees conferred.

Comparisons Between Ed.D and Ph.D. Programs

Traditional statements of purposes of the two degrees

stress the differentiation between these programs. The data generated in this study did not reveal differences to the degree expected. In fact, there was a surprising level of similarity existing between the two programs.

Of the 30 areas of concentration listed, more Ph.D. degrees were awarded in eight fields and more Ed.D. degrees were granted in the remaining 22 fields. However, both degrees were conferred in all 30 areas of concentration. The data supported the view that there appeared no general practice of reserving certain areas for one degree. Hence, no distinct differentiation as to subject matter was established between the two degrees.

The classic difference between the two degrees, that of foreign language requirements, was confirmed in the study. Reading competency in two foreign languages, one of which could be waived, was the most favored requirement among Ph.D. programs. However, nearly one-quarter of Ph.D. programs and virtually no Ed.D. programs had a foreign language requirement. Therefore, it would appear that there is some movement toward the elimination of the foreign language as part of doctoral programs.

Deviations from the traditional dissertation requirement have often been cited as a prime difference between Ph.D. and Ed.D. programs. This was not evident in this study. Virtually all Ph.D. programs and over 90 percent of Ed.D. programs were described as requiring a formal dissertation as the only acceptable terminal research project. No institution permitted a field study report as the only terminal research project available to condidates. However, two Ph.D. and six Ed.D. programs reported that a choice between a formal dissertation or a field study was possible in their institutions.

There was some indication that Ed.D. programs tended to be more structured in form than Ph.D. programs. In addition, the Ed.D. programs were generally more demanding in their course requirements.

In general, more Ed.D. programs than Ph.D. programs required a teaching certificate for admission. On the other hand, approximately two-fifths of both Ph.D. and Ed.D. programs left this requirement to the discretion of the department. There was less variation between Ph.D. and Ed.D. programs when teaching experience as a criterion of the admission process was examined.

Comparisons Between Old Institutions and New Institutions

It was hoped that marked differences might emerge between the Old and New Institutions indicating new trends in preparation of students embarking upon doctoral study in Education. Such was not the case. It has often been felt that new institutions are afforded opportunities to experiment and to innovate without the traditional barriers and pressures impinging upon long-established colleges and universities. However, it may well be that the need for recognition and acceptance places new institutions in a less favorable position with the result that imitation of established practices is given greater priority in the formative years than the setting up of new and experimental programs.

Overall, the New Institutions reported practices and policies very similar in nature to those operating in Old Institutions. Diversity was again apparent although differences between institutions were more limited in range than those reported in the Old Institutions. Nevertheless, some shifts were perceptible. New Institutions as compared with Old Institutions more often required the master's degree as a prerequisite for admission to doctoral study; were less stringent in requirements pertaining to undergraduate grade-point average; required letters of recommendation more frequently for application; laid greater stress upon teaching experience as a criterion for admission purposes; permitted provisional status more frequently; required an entrance examination and emphasized more strongly the Graduate Record Examination as a screening instrument; made the personal interview mandatory more frequently for acceptance as a doctoral student; revealed greater emphasis upon required core or tool subjects; more often administered a comprehensive final examination, both written and oral; and, without exception, required a formal dissertation as the terminal research project.

Profile of Admissions Requirements

Although diversity characterized the whole study, the data did reveal somewhat uniform patterns relative to many requirements. The "typical" doctoral program required:

1. A bachelor's degree from an accredited institution. Four institutions did not require a bachelor's degree. On the other hand, 65 institutions did not require a master's degree while 40 did make such a stipulation for admission to the doctoral program.
2. Certain levels of both undergraduate and graduate grade-point average. This was a nebulous area with 45 institutions indicating that admission was not contingent upon undergraduate academic performance, while 32 institutions did not require a certain graduate grade-point average for admission to doctoral study. However, three-fifths of the institutions stressed undergraduate grade-point average and even more – seven-tenths – had minimum graduate grade-

point averages as part of admission criteria.

3. At least one letter of recommendation. Six institutions made no such requirement and 10 indicated that this facet of the admission process varied from department to department.
4. An entrance examination. Only two institutions did not use an entrance examination for admission, while seven others indicated that this requirement varied among departments. The Graduate Record Examination was by for the most popular screening instrument with over 80 percent of institutions making use of it. The Miller Analogies Test was used by more than one-half of participating institutions.
5. A personal admissions interview. This was either required or recommended by four-fifths of institutions, only 21 or 18.6 percent reporting that an interview was not required. The persons most frequently responsible for the interview were the department or division chairman, the prospective advisor, individual faculty members, or a faculty committee.
6. Admissions counseling, predominantly in the College or department of Education. Only one institution indicated that it did not offer admissions counseling.
7. Admission on a provisional basis, if necessary. Forty-one institutions, however, did not permit such a classification.
8. No specified age, maximum or minimum. Eleven institutions did report reliance on an absolute age as an admissions requirement, beyond which entrance to the program was denied. These ages ranged from 35 to 50 years, with the median being 45 years and the mean being 44.1 years.
9. A teaching certificate and teaching experience. The wide diversity among institutions with regard to these admission criteria made a definitive statement impossible. Nearly one-half of Ph.D. programs and more than one-third of Ed.D. programs did *not* require a teaching certificate. Seven Ph.D. programs and 20 Ed.D. programs specifically stated that they did require a teaching certificate. About two-fifths of both Ph.D. and Ed.D. programs indicated that this admission criterion was a departmental or student committee decision. Teaching experience was *not* required by about one-third of Ph.D. programs and one-fifth of Ed.D. programs. Fourteen Ph.D. and 29 Ed.D. programs made teaching experience a definite requirement, the balance indicating that this requirement varied with the department. Where a definite period was stated to fulfill the requirement, the most frequent response was three years.

Profile of Curricular Requirements

The "typical" or modal doctoral program included the following curricular requirements:

1. Total semester hours required to earn the doctorate – 75 hours for Ph.D. (Range 42-96); 82 hours for Ed.D. (Range 60-99 hours). However, 20 Ph.D. programs reported that no number of hours was specified; 16 Ed.D. programs followed the same practice of not specifying the number of hours to earn the doctorate.
2. Minimum semester hours beyond the master's degree – 54 hours for Ph.D., 58 hours for Ed.D. (Range for both Ph.D. and Ed. D. – 18-90 hours).
3. Minimum semester hours in the field of Education – 36 hours for Ph.D. (Range 0-58 hours); 40 hours for Ed.D. (Range 0-78 hours).
4. No specified minimum of semester hours outside professional Education. However, 52.8 percent of Ph.D. programs and 51.2 percent of Ed.D. programs indicated that this requirement varied from department to department. Nearly one-third of Ph.D. programs specified a number of hours – 15 with a range of 0-38 hours; about two-fifths of Ed.D. programs specified the same requirements as the Ph.D. programs.
5. Maximum transferable semester hours – 33 hours for Ph.D. programs and 36 hours for Ed.D. programs. The respective ranges were 0-60 hours and 0-64 hours. Twenty-one Ph.D. programs and 16 Ed.D. programs did not specify a maximum number of transferable hours.
6. Six years recommended as maximum period of time for completion of degree after admission to study (Range 1-10 years). Eleven institutions reported no stated maximum.
7. Average length of time candidates took to complete degree from admission to study through graduation – 4 years (Range 2-10 years).
8. A residence requirement. There was wide interpretation as to what constituted "residence".
9. Requirements for majors and minors in the field of Education plus a cognate field were reported by 52.8 percent of Ph.D. programs and 44.5 percent of Ed.D. programs. The next most popular combination for Ph.D. programs required no major nor minor, while a major and a minor requirement in Education was the third most frequently used. Ed.D. programs favored a major and minor in Education only as the second choice, with no major or minor as the third most cited combination.
10. Core or tool subjects required. Only five institutions reported that core or tool courses were either not required or not specified. The most frequently required courses, shown by percentage of the participating institutions, were as follows:

Educational research 70.8%
Educational statistics 63.4%

Educational psychology 54.0%
Philosophy of Education 50.4%
History of Education 46.0%

11. No foreign language required for Ed.D. One institution did report an Ed.D. program in which reading competency in one foreign language without a waiver was required. Five other Ed.D. programs reported foreign language requirements but in each instance this could be waived. Nearly one-half of Ph.D. programs required competency in at least one foreign language. However, nine Ph.D. programs reported that, although competency in two foreign languages was desirable, both could be waived. Nearly one-quarter of Ph.D. programs had no foreign language requirement.
12. Statistics and computer programming were the most frequently used waivers for foreign language requirements.
13. Formal dissertation for both degrees. Six Ed.D. programs and two Ph.D. permitted a choice between a formal dissertation and a field study report.
14. Examination programming: (a) written admission examination (diagnostic); (b) written and oral candidacy examination. Sixteen Ph.D. and 23 Ed.D. programs reported a written only candidacy examination; fifteen programs had no candidacy examinations; (c) final oral examination covering dissertation alone.

Related Conditions

Other conditions investigated in the study were recruitment, housing, finance covering scholarships, assistantships, fellowships, and internships, and drop-out factors.

Slightly more than two-thirds of institutions reported that they had active recruiting programs, although it did not always cover all fields. The three most frequently used practices were faculty and other personal contacts; the master's program; and scholarships, fellowships, and assistantships.

Tuition costs covered a wide range with private institutions predictably more expensive than public colleges and universities. This was not true in every instance, some overlap occurring. Over nine-tenths of participating institutions reported that they offered scholarships to doctoral students. Financial assistance was available in the form of assistantships, fellowships, and internships. Virtually all of these appointments were filled. Compensation, both in private and public institutions, was found to cover a very wide range. The overall picture for the doctoral student was not a particularly encouraging one. Tuition costs were rising; scholarships although available were facing an increasing demand; and fellowships, assistantships and internships were filled as soon as appointments became vacant.

Housing was generally easy to locate off campus. On campus, the position was both good and bad. A little over one-half of the institutions reported housing easy to locate (although in some instances this was restricted to single students only), while about two-fifths indicated that housing was at least difficult to obtain on campus. Only 6.2 percent of participating institutions indicated that housing priority was given to doctoral students.

The most frequently cited reason (by the institution) for drop-outs was "inadequate personal financing." This was reported in slightly over three-quarters of public institutions and by less than one-half of private institutions. "Difficulty with the dissertation" was ranked second with "job promotion which precluded continuation of doctoral study" in third position.

Changes, Needs, and Projections

Program expansions were the most frequently reported change during the previous ten years. Seventy percent of participating institutions indicated such a change. Program expansions were mainly concentrated in areas of concentration. Higher education, foundations of education and educational administration were the areas of concentration experiencing the greatest development.

Several critically needed program expansions or new program development in the field of Education were reported. Educational research was cited as the most critically needed program expansion. Urban education followed next, with early childhood education and junior and community college education given equal weight as the third most critically needed expansion.

Two projections as to expectations of doctoral production during the next decade were given. The first showed an increase of 190 percent in doctorates in Education and rising to about 30 percent of doctorates conferred in all fields. The second projection, considered more realistic, predicted a 105 percent increase over the decade – this suggested about 10,000 conferred doctorates in the final year of the decade. It was also estimated that there would be a slowing down of the present annual growth rate of about 9.5 percent to 6.7 percent.

CONCLUSIONS

The wide diversity of institutional settings reported in this study made it difficult to arrive at specific conclusions

from the data generated by this survey. Nevertheless it would appear both reasonable and appropriate that certain general conclusions be drawn.

The Ed.D. and Ph.D. degrees in the field of Education

1. While there may be many covert differences between Ph.D. and Ed.D. programs, the evidence in this study suggested that the Ph.D. programs had gained ascendancy over Ed.D. programs to the point that they were about equally divided, with the Ph.D. programs predominating slightly. More important, however, was the evidence pointing to the growing similarity between the two programs rather than the overt differences observed.

The slight but perceptible greater growth of Ph.D. programs as compared with Ed.D. programs suggested a movement favoring this direction as nomenclature had come to mean less about the differences between the programs themselves. With a decreasing emphasis upon the foreign language requirement in Ph.D. programs, institutions were apparently choosing this latter route possibly because of supposed higher prestige value of the Ph.D. degree. Many Ph.D. programs reported were indeed Ed.D. programs in everything but title.

The percentage of Ed.D. and Ph.D. degrees conferred during the period of the study remained steady and it would appear that some time would have to elapse before a corresponding change, as noted in the case of programs, was observed in the relative proportions of the two degrees.

As was the case in the AACTE[1] Study it would seem wise to conclude that either degree will be best understood through its institutional association. In the absence of general statements as to the divergent functions of either degree, there would appear to be no other alternative.

2. New Institutions appeared more concerned with establishing acceptance and recognition of their programs than with the introduction of innovative practices.

The evidence tended to support the hypothesis that New Institutions would establish programs that generally replicated established ones. The influence of the Old Institutions on the initiating of programs in the more recent colleges and universities apparently came from faculty members and accrediting agencies. Any variations from the traditional areas usually reflected specific local needs and interests as, for example, developing programs in urban education at urban located institutions. This finding should not be surprising but expected and understandable. New institutions, however desirous they may be of breaking new ground, are generally limited by the hard realities of finance and recognition with the result that experimentation in educational practices does not receive as high a priority rating as would be the case with an institution unfettered by tradition.

In the case of the institutions which had participated in the 1956-1958 AACTE study, no major shifts in the programs were observed. What changes were reported were usually small, with the exception of liberalizing the foreign language requirement. In general, the changes which occurred reflected efforts to improve doctoral programs in Education with the purpose of upgrading the quality of doctoral degree holders. It would appear that new developments and new paths of study were more likely to occur at the well-established institution with its greater security, although there were certain instances at the newer colleges where practices were implemented at the same time or soon after those appearing at the Old Institutions. The net effect of these modifications was to make doctoral programs in Education less easy to differentiate.

3. The present character of degree production did not in all areas of concentration match the identified areas of critical shortage.

The four areas that were currently the largest producers of Education doctorates were school administration, guidance and counseling, educational psychology, and higher education. It would be inappropriate at the present time of uncertainty to suggest that any of these areas may eventually face a problem of over-production of graduates. It would appear more proper, however, for the respective departments to re-evaluate their programs on a regular basis to determine whether their offerings were consistent with the needs both of the students and the areas concerned. Projections for a decade ahead have consistently been shown to be unreliable because of the unidentified variables which impinge upon them.

The Current Study identified educational research, urban education, early childhood education, and junior and community college education as the areas of greatest critical shortage. For the same reasons cited above, it will not be proper to steer all aspiring doctoral students toward areas of critical shortage merely to produce the numbers required. As an example, there is growing evidence that educational research courses are not taking account of the various audiences to be served in the educational enterprise. Different types of training in this field are required by research methodologists, developers, diffusers, and evaluation specialists and it may well be argued that educational research in the conventional sense is already oversubscribed.

[1]Harold E. Moore, John H. Russel, and Donald G. Ferguson, The Doctorate in Education, Vol. II The Institutions (Washington D.C.: American Association of Colleges for TEacher Education, 1960), p. 78.

Again this points to the need for a serious and periodic evaluation of the area of concentration under investigation to determine whether overproduction or underproduction does in fact exist.

4. The critical nature of financial assistance for students is likely to persist and possibly become more acute.

The evidence pointed to an increasing financial burden being placed upon students. Not only were tuition fees on the increase (and in this regard out-of-state students in public institutions were having to meet staggering costs) but scholarships, fellowships, assistantships and internships were in such demand that whatever opportunities existed these were rapidly absorbed. Colleges and universities were obviously aware of the problem but the indicators suggest that the present level of assistance is not likely to keep pace with student needs in the years ahead. The most cited reason by administrators for students dropping out of doctoral programs was "inadequate personal financing" and the evidence pointed to an increase in this direction rather than an alleviation of the position.

It must be constantly borne in mind that tuition costs are but a minor proportion of total costs incurred by the student. The question of housing therefore is of paramount importance. The study revealed that housing was generally easily available off campus but that on campus opportunities ranged from excellent to non-existent. There was also definite evidence that married students face greater difficulty than their single counterparts. Adequate married housing at reasonable cost is more likely to be found on campus but when such opportunities are limited it adds to the problems of married students with families, a significant fraction of whom are engaged in doctoral studies.

5. There was little evidence that admission criteria had changed from their traditional hurdle role to one of individual evaluation of a student's needs and his or her desired terminal behavior.

Although many of the admission criteria and the decisions arising from them were left to the discretion of individual departments, there appeared to be a growing uniformity of the criteria employed. As an example, the Graduate Record Examination was employed by more than four-fifths of the institutions. At the same time it would seem that there was little agreement as to the weight given the various criteria in the admission process. This apparently arose from a sincere desire to recognize individual differences and the needs arising from those differences. This tended to suggest that there was little true understanding of what the criteria were purported to measure and how these would relate to what the graduate would be required to perform in his future vocation at the completion of the doctoral study period.

No single institution reported a genuine departure or an innovative approach to the difficult problems facing the admission officer. With the controversial concept of "open" admissions policies gaining ground, it was expected that some divergent practices might have emerged even at the advanced graduate level but such was not the case.

6. Curricular practices in spite of differences between institutional settings revealed a distinct trend toward greater uniformity among programs.

Modifications, apart from the liberalizing of the foreign language, were generally minor. New Institutions in particular presented a similar picture based largely upon the adoption of practices to upgrade the traditional programs in operation in the Old Institutions. New areas of study such as urban education, which did emerge in city located institutions, were more the exception than the rule. Curricular offerings and requirements showed little evidence of taking into account the individual student's needs and of relating these to their future concerns. Courses of study showed little change from those of a decade before and the same sequence of hurdles was much in evidence.

7. Based on the current situation, relatively little change will be projected in doctoral production in the field of Education during the next decade.

An increase in total doctoral production in Education was projected for the next decade. This projected increase amounted to about 105 percent for the period, which was less than that observed during the last decade. The slowness of the projected increase in doctoral production during the next decade was supported by the fact that the projected annual growth rate for the period showed a decrease, averaging about 6.7 percent per year over the decade. The previous decade showed an annual growth rate of 9.5 percent.

Little relative change was projected by area of concentration. The projected figures were, as a whole, relatively realistic in view of the fact that they are generally compatible with expectations observed in other sources. Thus, the changes in doctoral production projected during the next decade would be relatively slight.

RECOMMENDATIONS FOR FURTHER STUDY.

The following areas are recommended for further study either through further analysis of data gathered for this study, through investigating additional problem areas, or both.

1. This study should be up-dated annually in order to obtain a continuing picture of doctoral production in

Education. This would not necessarily mean obtaining information directly from the institutions through the questionnaire method as a number of alternate reliable sources were identified during the course of the survey. Although published sources may be made only biennially, the data would be available through permanent storage, for study at any time. It would, therefore, serve as a baseline for other investigations.

2. There should be a study of the actual demand for doctoral graduates in Education. This would entail a lengthy manpower study of each area of concentration and the relation thereof to the needs both within and without the field of Education. This would help not only in the development of programs but also in providing an awareness among doctoral students as to the areas of critical shortage.
3. A number of follow-up studies have been conducted on graduates from doctoral programs from various institutions across the country. These have been principally geared to reveal the extent to which graduates were located in positions suited to their goals and doctoral education preparation. In almost all cases, these investigations have been limited to a given institution. As a starting point it would seem that a synthesis of these findings could form the base of a more comprehensive study covering an assessment of job success coupled with doctoral preparation and related to demand for graduates in a given area of concentration.
4. The students, who drop out of doctoral programs, particularly at the dissertation stage, continue to be the subject of much concern. Twenty-one institutions in this study indicated that they had conducted studies in this area within their own settings. Unfortunately these findings are seldom published with the result that little more is known about this critical area than was a decade ago. A comprehensive study, possibly on a national scale as was recommended by the 1956-58 AACTE survey, is still in great need. It may well be that the very real problem of locating such dropouts precludes such an investigation. For this reason, it may be more fruitful to conduct studies of students just prior to the candidacy examination. In this way it may be feasible to seek comparisons between those who continue with the studies and those who drop out.
5. Curricular policies and admission requirements appear to be moving toward greater uniformity in spite of the picture of diversity revealed in those areas among institutions. There seemed to be little attempt to relate the profile of the incoming student, the doctoral preparation, and the desired terminal behavior of the graduate with his or her proposed field of endeavor. For this reason, it would appear appropriate for institutions to examine the feasibility of evaluating their respective departmental programs by utilizing systems analysis techniques.
6. There needs to be further study to determine the extent of finance as it bears upon the pursuit of the doctoral degree in Education. Part of such studies would include investigations of sources of finance and methods of developing others for the implementation of such programs.
7. Although not included in this study but as part of preparation to it, the literature appeared to indicate that more institutions were planning to initiate doctoral programs in Education. This should prompt study to determine if more programs are needed or if it would be better to expand existing programs. Such investigation should be geared to determine the necessary resources and conditions that should prevail in a given institution to ensure a reasonable expectation of success in either establishing a new program or in expanding an old one.
8. This study indicated that the purposes and functions of the Ph.D. and the Ed.D. degrees were perceived to be quite similar. What differentiation there was between the two degrees reflected the manner in which the field of study was perceived. It is recommended that further study to determine more precisely the difference between the two degrees be undertaken. If the differences are such as to warrant the distinguishing nomenclature, these features should be clearly stated. If such differences are shown to be less than major, a case may well be made for the elimination of differing titles and the establishment of one degree alone.

APPENDIX

APPENDIX A
GENERAL INFORMATION ON TOTAL GROUP OF INSTITUTIONS
OFFERING DOCTORATES IN EDUCATION, 1965-69

Institution	Type	Ed.D. first granted	Ph.D. first granted	Administrative Responsibility Ed.D.	Ph.D.
1	2	3	4	5	6
ALABAMA					
Auburn University	State	1955	---	D	–
University of Alabama	State	1953	1958	G	G
ARIZONA					
Arizona State University	State	1954	1964	G	G
University of Arizona	State	1952	1926	G	G
ARKANSAS					
University of Arkansas	State	1953	---	G	–
CALIFORNIA					
Claremont Graduate School	Private-Grad.	---	1937	–	G
Stanford University	Private	1929	1916	E	D
United States International University	Private	---	1966	–	G
University of California at Berkeley	State	1924	1898	G	G
University of California at Los Angeles	State	1944	1966	G	G
University of the Pacific	Private	1954			
University of Southern California	Private	1931	1926	E	G
COLORADO					
Colorado State College[1]	State-Gen.	1941	?		G
Colorado State University	State	---	1968		G
University of Colorado	State	1944	1928	G	
University of Denver[2]	Private	1943			
CONNECTICUT					
University of Connecticut	State		1950		
DELAWARE					
University of Delaware[3]	State				
DISTRICT OF COLUMBIA					
The American University					
The Catholic University of America	Private		1906		E
The George Washington University	Private	1933		E	
FLORIDA					
Florida State University	State	1952	1955		
University of Florida	State	1947	1968	D	D
University of Miami	Private	1963	1961	D	D

Institution	Type	Ed.D. first granted	Ph.D. first granted	Administrative Responsibility Ed.D.	Ph.D.
1	2	3	4	5	6
GEORGIA					
University of Georgia	State	1948	1968?	D	D
IDAHO					
University of Idaho	State	1962	1965	G	G
ILLINOIS					
Illinois State University	State	1966	1966	G	G
Loyola University of Chicago[4]	Private	1951	1928	E	
Northern Illinois University	State	1965		D	
Northwestern University	Private	1922	1944	?	G
Southern Illinois University	State		?		G
University of Chicago[5]	Private		1901		
University of Illinois	State	1946	?	D	D
INDIANA					
Ball State University	State	1963	1964	G	G
Indiana University	State	1927	1924		
Indiana State University	State		1967		G
Purdue University[6]	State		1949		
University of Notre Dame	Private		1949		G
IOWA					
Iowa State University	State		1943		
University of Iowa	State		1915		G
KANSAS					
University of Kansas	State	1941	1920	G	G
Wichita State University	State				
KENTUCKY					
Univeristy of Kentucky	State	1947	1931	D	D
LOUISIANA					
Louisian[illegible]ate University	State		1935		
MARYLAND					
Johns Hopkins University	Private	1930	1916	?	G
University of Maryland	State	1949	1943	D	D
MASSACHUSETTS					
Boston College	Private	1957	?	G	G
Boston University	Private	1932		E	
Harvard University	Private	1922	1910	E	D
Springfield College[7]	Private College				
MICHIGAN					
Michigan State University	State	1945	1925	E	E
University of Michigan	State	1948	1902	G	G
Wayne State University	State	1949			

Institution	Type	Ed.D. first granted	Ph.D. first granted	Administrative Responsibility Ed.D.	Ph.D.
1	2	3	4	5	6
MINNESOTA					
University of Minnesota			1917		
MISSISSIPPI					
Mississippi State University	State	1966	1970	G	G
University of Mississippi	State	1953	1955	D	D
University of Southern Mississippi	State	1962	1962	D	D
MISSOURI					
St. Louis University	Private		1932		G
University of Missouri	State	1937	1916	D	D
University of Missouri at Kansas City	State		1957		D
Washington University	Private	1936	1938	D	D
MONTANA					
Montana State University	State	1958	1965	G	G
University of Montana	State	1958		D	
NEBRASKA					
University of Nebraska	State	1954	1915	G	G
NEW JERSEY					
Rutgers University[8]	State	1931			
NEW MEXICO					
New Mexico State University	State	1967		D	D
University of New Mexico	State	1960	1961	D	D
NEW YORK					
Cornell University	State-Private	1949	?	G	G
Fordham University[9]	Private		1916	E	D
New York University	Private	1934	1922	E	E
St. John's University	Private	1962	1950	E	E
State University of New York at Albany					
State University of New York at Buffalo	State	1934	1964	E	G
Syracuse University	Private	1935	1937	E	D
Teachers College, Columbia University	Private	1935	1898	E	D
University of Rochester	Private	1962		E	
Yeshiva University	Private	1959	1951	G	G
NORTH CAROLINA					
Duke University	Private	1952	1933	G	G
North Carolina State University at Raleigh	State	1967		D	
University of North Carolina	State	1954	1926	G	G
NORTH DAKOTA					
University of North Dakota	State	1930	1929	G	G

Institution	Type	Ed.D. first granted	Ph.D. first granted	Administrative Responsibility Ed.D.	Ph.D.
1	2	3	4	5	6
OHIO					
Case Western Reserve University	Private	1941	1931	G	G
Kent State University	State		1964		D
Miami University	State		1969	D	D
Ohio State University	State		1922		G
Ohio University	State		1961		D
University of Cincinnati	Municipal-State Affiliated	1934	1925	E	?
University of Toledo	State	1962	?	D	D
OKLAHOMA					
Oklahoma State University	State	1942		G	
University of Oklahoma	State	1931	?	D	D
University of Tulsa	Private	1954		G	
OREGON					
Oregon State University	State	1943	1963	G	G
University of Oregon	State	1942	1921	D	D
PENNSYLVANIA					
Bryn Mawr College	Private-L.A.C.		1923		G
Dropsie College		1950			
Lehigh University	Private	?		D	
Pennsylvania State University	State	1931	1927	D	D
Temple University	State-Related	1928		G	
University of Pennsylvania[10]	Private	1944	1910		
University of Pittsburgh	State	1933	1916	E	E
SOUTH CAROLINA					
University of South Carolina	State		1923		
SOUTH DAKOTA					
University of South Dakota	State	1959		D	
TENNESSEE					
George Peabody College for Teachers	Private-Teachers	1951	1919	G	G
Memphis State University	State	1968		D	
University of Tennessee	State	1950		D	D
TEXAS					
Baylor University	Private	1961	1955	D	?
North Texas State University	State	1953	1969	G	G
Texas A & M University	State	1963	1966	G	G
Texas Technological College	State	1953		D	
Texas Woman's University	State	1937			
University of Houston	State	1947		D	
University of Texas	State	1930	1920	G	G

Institution	Type	Ed.D. first granted	Ph.D. first granted	Administrative Responsibility Ed.D.	Ph.D.
1	2	3	4	5	6
UTAH					
Brigham Young University					
University of Utah	State	1950	1949	G	G
Utah State University	State	1954	1954	D	D
VIRGINIA					
University of Virginia	State	1952	1922	E	D
WASHINGTON					
University of Washington	State	1948	?	G	G
Washington State University	State	1950	1938	D	D
WEST VIRGINIA					
West Virginia University	State	1956		G	
WISCONSIN					
Marquette University	Private	1967	1966	G	G
University of Wisconsin	State		1911		D
University of Wisconsin at Milwaukee	State				D
WYOMING					
University of Wyoming	State	1948	1947	D	D

[1]General administration by Graduate College; specific administration by department.
[2]Administered by "School of Education."
[3]Ph.D. program administered by doctoral committee.
[4]Degrees awarded by Graduate College but control by College of Education.
[5]Ph.D. awarded by department of Education; Social Science Division.
[6]Ph.D. program administered jointly by Graduate College and Department of Education.
[7]Awards the Doctor of Physical Education degree.
[8]Administration by the "Graduate School of Education."
[9]Ed.D. program initiated in 1968.

APPENDIX B

DOCTORAL PRODUCTION FOR PERIOD OF STUDY OF TOTAL GROUP, BY STATE

	Old Institutions		New Institutions		All Institutions	
	Nr. of Deg.	%	Nr. of Deg.	%	Nr. of Deg.	%
Alabama	229	1.7	–	–	229	1.5
Alaska	–	–	–	–	–	–
Arizona	254	1.9	–	–	254	1.7
Arkansas	151	1.1	–	–	151	0.9
California	1197	8.7	20	1.4	1217	8.0
Colorado	626	4.6	8	0.6	634	4.2
Connecticut	120	0.9	–	–	120	0.8
Delaware	–	–	10	0.7	10	0.1
District of Columbia	204	1.5	42	2.9	246	1.6
Florida	468	3.4	37	2.6	505	3.3
Georgia	182	1.3	–	–	182	1.2
Hawaii	–	–	–	–	–	–
Idaho	–	–	45	3.1	45	0.3
Illinois	510	3.7	151	10.4	661	4.4
Indiana	690	5.0	123	8.5	813	5.4
Iowa	278	2.0	–	–	278	1.8
Kansas	134	1.0	–	–	134	0.9
Kentucky	82	0.6	–	–	82	0.5
Louisiana	65	0.5	–	–	65	0.4
Maine	–	–	–	–	–	–
Maryland	174	1.3	–	–	174	1.1
Massachusetts	398	2.9	96	6.6	494	3.3
Michigan	901	6.6	–	–	901	6.0
Minnesota	257	1.9	–	–	257	1.7
Mississippi	83	0.6	117	8.1	200	1.3
Missouri	288	2.1	8	0.6	296	2.0
Montana	43	0.3	–	–	43	0.3
Nebraska	273	2.0	–	–	273	1.8
Nevada	–	–	–	–	–	–
New Hampshire	–	–	–	–	–	–
New Jersey	155	1.1	–	–	155	1.0
New Mexico	–	–	115	8.0	115	0.8
New York	2039	14.8	93	6.4	2132	14.1
North Carolina	149	1.1	20	1.4	169	1.1
North Dakota	93	0.7	–	–	93	0.6
Ohio	435	3.2	137	9.5	572	3.8
Oklahoma	439	3.2	–	–	439	2.9
Oregon	261	1.9	–	–	261	1.7
Pennsylvania	652	4.8	45	3.1	697	4.6
Rhode Island	–	–	–	–	–	–
South Carolina	21	0.1	–	–	21	0.1
South Dakota	–	–	88	6.1	88	0.6

Tennessee	257	1.9	9	0.6	266	1.8
Texas	555	4.1	186	12.8	741	4.9
Utah	211	1.5	75	5.2	286	1.9
Vermont	–	–	–	–	–	–
Washington	159	1.2	–	–	159	1.1
West Virginia	47	0.3	–	–	47	0.3
Wisconsin	375	2.7	21	1.4	396	2.6
Wyoming	131	1.0	–	–	131	0.9
Virginia	108	0.8	–	–	108	0.7
Total	13694	100.0	1446	100.0	15140	100.0

THE DOCTORATE IN EDUCATION

awarded by Universities and Colleges in

THE UNITED STATES AND CANADA

a survey
sponsored and conducted by

PHI DELTA KAPPA
COMMISSION ON HIGHER EDUCATION

and

RESEARCH SERVICE CENTER

and

THE AMERICAN ASSOCIATION
OF COLLEGES FOR TEACHER EDUCATION

To Be Returned To

RESEARCH SERVICE CENTER
PHI DELTA KAPPA
8TH & UNION STREETS
BLOOMINGTON, INDIANA
47401

88

_____
(Date)

Name of Institution _____

Name of person completing questionnaire _____

Position of person completing questionnaire _____

1. The institution listed above is chartered as a (check appropriate category)

   ____ State University
   ____ Private University
   ____ State General College
   ____ Municipal College or University
   ____ State Teachers College
   ____ Private Teachers College
   ____ Other (Specify) _____

2. Complete the following table by filling in the number of **doctoral** degrees in professional education awarded in each of the years listed below.

July through June	Ph. D.	Ed. D.	Other (Please Specify)
1965-66			
1966-67			
1967-68			
*1968-69			

*If no degrees were awarded in 1968-69, has the doctoral program in education been terminated?

Yes ____ No ____

3. The administrative unit within the institution currently responsible for administering the doctoral programs and awarding doctoral degrees in education is (check appropriate box for type of degree).

	Ph. D.	Ed. D.	Other
a. College of education			
b. Graduate college			
c. Dual Control by a & b			
d. Other (Specify)			

_____

4. a. During 1968-69 the total institution had _____ full-time faculty members (persons holding rank as instructor, assistant professor or higher including visiting professional persons).

   b. During 1968-69 the total institution had _____ part-time faculty members.

5. a. The number of full-time faculty in education in 1968-69 was _____ (Same requirement as above and exclusive of laboratory school personnel).

   b. The part-time faculty in that same time period included _____ persons. (Do not include laboratory school personnel unless they teach college courses on a part-time basis).

6. In 1968-69 how many full-time faculty members were qualified to direct doctoral dissertations?

7. When answering this question please use the GLOSSARY describing these areas of concentration which appears at the end of the questionnaire. Please indicate, in the following table, the number of Ph. D.'s in education and/or the number of Ed. D.'s conferred in the academic years 1965-66, 1966-67, 1967-68, and 1968-69 for those areas of concentration offered at this institution. Additional entries can be made at the end of the table. Do NOT enter a student more than once under an area of concentration.

Area of Concentration	1965-66 Ph.D.	1965-66 Ed.D.	1966-67 Ph.D.	1966-67 Ed.D.	1967-68 Ph.D.	1967-68 Ed.D.	1968-69 Ph.D.	1968-69 Ed.D.
Adult Education								
Agriculture Education								
Art Education								
Audio Visual Education								
Business Education								
Education—general (where no sub-speciality developed)								
Educational Measurement and Statistics								
Educational Psychology								
Elementary Education								
English Education								
Foreign Language Education								
General Curriculum								
Guidance and Counseling								
Higher Education								
History and Philosophy of Education								
Home Economics Education								
Mathematics Education								
Music Education								
Nursing Education								
Physical and Health Education								
Reading								
Religious Education								
School Administration								
Science Education								
Secondary Education								
Social Science Education								
Special Education								
Speech Education								
Teacher Education								
Vocational Education								
Other (Specify)								

8. a. In what year was this institution authorized to offer the doctorate in the field of education?

Ph.D. _____ Ed.D. _____

b. What area(s) of concentration in education? (See Glossary) _____

c. In what year did this institution confer the first doctorate in the field of education?

Ph.D. _____ Ed.D. _____

d. What area(s) of concentration in education? (See Glossary) _____

9. Were doctoral degrees in fields other than education offered prior to the date on which the first education doctorates were offered?

Yes ____ No ____ Simultaneously ____

10. a. If only one doctoral degree is offered in the field of education at this institution, are there plans for offering a second one?

Yes ____ No ____

b. If the other degree is neither a Ph. D. nor an Ed. D. please write the title to be conferred

_____

11. The next several questions deal with admissions to the doctoral program. Responses to them should provide information correct for the 1968-69 school year.

a. Does an applicant for admission to the doctoral program have to have earned

1. A Bachelor's degree? Yes ____ No ____

2. A Master's degree? Yes ____ No ____

b. Is admission to the doctoral program directly contingent on the applicant's undergraduate grade point average?

Yes ____ No ____

c. Is admission to the doctoral program directly contingent on the applicant's graduate grade point average?

Yes ____ No ____

d. Are letters of recommendation required for admission to the doctoral program?

Yes ____ No ____ Varies with department ____

e. Is a teaching certificate required as part of the admission process? (Yes or No)

Ph. D. ____ Ed. D. ____ Varies with department ____

f. How many years of teaching experience are required for admission to the doctoral program?

Ph. D. ____ Ed. D. ____ Varies with department ____

g. 1. Is there a maximum age beyond which admission is denied?

Yes ____ No ____

2. If yes, what is that age? _____

h. Is a provisional admission status permitted?

Yes ____ No ____

i. 1. Is an entrance examination part of the admission requirements?

Yes ____ No ____

2. If yes, please check from the following list which examinations are used for entrance purposes.

____ Graduate Record Examination
____ Miller Analogies Test
____ Locally Constructed Test
____ Other (Specify) _____

j. 1. Is a personal interview required as part of the admissions procedure?

Yes ____ No ____ Not required but recommended ____

2. Check which of the following persons is (are) responsible for conducting this interview?

____ Admissions officer
____ Chairman, division of graduate study in college, school, division or department of education
____ Dean or director of education
____ Faculty Committee
____ Faculty members individually (usually from area of proposed study)
____ Graduate dean
____ Prospective adviser or major professor
____ Other (Specify) _____

k. 1. Is admissions counseling available?

Yes ____ No ____

2. Check which of the following provides this service.

____ a. Counseling within college, school, or department of education
____ b. Counseling provided by institution's general personnel services
____ c. Counseling provided by graduate college
____ d. Other (Specify) _____

12. The following section deals with curricular policies and procedures which characterize doctoral study.

a. Which credit hour system is used by your institution?

____ Quarter
____ Semester
____ Other (Specify) _____

b. What is the minimum total number of hours required to earn a doctorate?
Ph. D. ____ Ed. D. ____ Depends upon student's committee ____ No **specified** number of hours ____

c. What is the minimum number of hours beyond the master's degree required to confer a doctoral degree?

Ph. D. _____ Ed. D. _____

d. What is the maximum number of transferable hours, including master's degree?

Ph. D. ____ Ed. D. ____

e. Is the conferring of a doctoral degree contingent upon the completion of a residency requirement in your institution?

Ph. D. Yes ____ No ____ Ed. D. Yes ____ No ____

f. How many years are recommended as a maximum for degree completion? _____

g. What is the estimated average length of time in years for degree completion? _____

h. What is the minimum number of hours required in professional education courses?

Ph. D. ____ Ed. D. ____

i. What is the minimum number of hours required outside of the field of education?

Ph. D. ____ Ed. D. ____ Varies with department ____

j. Doctoral programs in professional education vary considerably as to their requirements for majors and minors. Please check below the requirement(s) in your institution.

Requirement	Ph. D. program	Ed. D. program
Majors and minors in Education only		
Majors and minors in Education plus cognate		
No majors or minors required		

k. Are the courses studied to meet the doctoral program requirements open to: (Please check as appropriate)

____ a. doctoral students only
____ b. doctoral and master's students
____ c. doctoral, master's, and undergraduate students

l. A number of core or tool subjects are required in doctoral programs in education. This does NOT include the foreign language requirement. Please indicate which of the following fall within this category.

____ Administration and supervision
____ Computer programing
____ Counseling and guidance
____ Educational psychology
____ Educational research
____ Educational sociology
____ Educational statistics
____ History of education
____ Philosophy of education
____ Other (Specify) _____

13. a. A foreign language requirement customarily characterizes doctoral study. Complete the following by checking which categories are utilized at your institution.

Requirement	Ph. D. Program	Ed. D. Program
No language requirement		
Reading competency of one foreign language (no waiver)		
Reading competency of one foreign language (waiver possible)		
Reading competency of two foreign languages (no waiver)		
Reading competency of two foreign languages (one may be waived)		
Reading competency of two foreign languages (both may be waived)		

b. If waiver is permitted, indicate the substitutions that can be made at your institution.

Substitution	Ph. D. Program	Ed. D. Program
Statistics		
Computer programming		
Other (Specify)		

c. Please indicate how the reading competency in the foreign language is measured.

____ a. By unseen translation
____ b. By prepared translation
____ c. E. T. S. Graduate School Foreign Language Examination.

14. a. Indicate which of the following satisfy the terminal research project.

Ph. D.	Ed. D.	
_____	_____	Formal Dissertation (thesis) **only**
_____	_____	Field Study report **only**
_____	_____	Choice of the above two
_____	_____	Combination of the above two

b. Is the research proposal written by the student under supervision?

Yes ____ No ____

c. Must the dissertation deal with or be an outgrowth of the student's instructional program?

Yes ____

OR

Is the student permitted to select his area of research outside the content of his instructional program?

Yes ____

d. Does the content of the dissertation form the basis of the final examination?

Yes ____ No ____

15. Major examinations customarily characterize doctoral study. Complete the following by checking which of the categories are utilized in your institution.

Examination	Ph. D. Program	Ed. D. Program
Admissions or entrance examinations		
Intermediate examination:		
Written only		
Oral only		
Written **and** oral		
Written **or** oral **or** both		
Candidacy examination:		
Written only		
Oral only		
Written **and** oral		
Written **or** oral **or** both		
Unspecified		
Final Examination:		
Comprehensive — written		
Comprehensive — oral		
Covers dissertation only — written		
Covers dissertation only — oral		

16. Financial considerations play a major role in any doctoral program. The following questions are pertinent to this area. Please indicate which practices operate in your institution.

a. How many hours constitute a minimum for full-time doctoral study? _____

b. If tuition is assessed on an hour basis, please indicate that rate in dollars. Otherwise write N/A.

In-state $ _____ Out-of-state $ _____

c. If tuition is assessed on a flat rate for full-time doctoral study, please indicate that rate in dollars per academic year. (September-June) Otherwise write N/A.

In-state $ _____ Out-of-state $ _____

d. If tuition is assessed on a graduated scale (i.e. 10-12 hrs.—$300, 13-15 hrs.—$350 etc.) write the amount charged for a full load (as specified in 16a) in the blanks below. If otherwise write N/A.

In-state $ _____ Out-of-state $ _____

e. Are scholarships available to doctoral students?

Yes ____ No ____

f. Assistantships form an integral part of most doctoral programs. Please complete the grid below by supplying the required information under the appropriate headings.

Type of Assistantship	Number Available	Number Filled	Compensation per Academic Year Range	Median
Administrative			$	$
Research			$	$
Teaching			$	$

g. Most doctoral programs offer fellowships. Please complete the grid below by supplying the required information under the appropriate headings.

Type of Fellowship	Number Available	Number Filled	Compensation per Academic Year Range	Median
Administrative			$	$
Research			$	$
Teaching			$	$

h. Internships are becoming an increasing feature in doctoral programs. Please complete the grid below by supplying the required information under the appropriate headings.

Type of Internship	Number Available	Number Filled	Compensation per Academic Year Range	Median
Administrative			$	$
Research			$	$
Teaching			$	$

17. Doctoral students in professional education by virtue of their maturity and, in many cases, family responsibilities have a particular concern for the availability of housing.

a. Is housing easily located off campus?

Yes ____ No ____

b. Is housing easily located on campus?

Yes ____ No ____

c. Is priority given to all doctoral students?

Yes ____ No ____

d. If item c is Yes, on what basis? _____

18. One of the most serious problems facing the doctoral program in professional education is that of the "dropout."

a. Has your institution conducted studies on doctoral students in education who did not graduate?

Yes ____ No ____

b. The following reasons are often cited as major causes for "dropouts" from doctoral programs. Please check all which apply in your institution. **Circle** the three most frequent.

____ Academic pressures
____ Difficulty with dissertation
____ Excessive demands on time devoted to non-course duties
____ Family problems
____ Housing problems
____ Inadequate personal financing
____ Job promotions which precluded continuation of doctoral study
____ Personal health
____ Professional relationships
____ Recommendation of the institution (Inadequate scholarship)

19. a. Is there an active program for the recruitment of doctoral students in education to your institution?

Yes ____ No ____

b. If yes, please check which of the following practices apply to your program. **Circle** the three most frequent.

____ Cooperation with other institutions
____ Faculty and other personal contacts
____ Master's program
____ News stories
____ Personal letters
____ Publications
____ Reliance on reputation and alumni
____ Scholarships, fellowships, assistantships
____ School study council
____ Summer session

20. Please indicate, in the following table, the full-time and part-time enrollment figures in the academic years 1965-66, 1966-67, 1967-68, and 1968-69 for **all** doctoral students at your institution.

	Full-time Doctoral Students	Part-time Doctoral Students
1965-66		
1966-67		
1967-68		
1968-69		

21. Please indicate, in the following table, the full-time and part-time enrollment figures in the academic years 1965-66, 1966-67, 1967-68, and 1968-69 for doctoral students in professional education at your institution.

	Full-time Doctoral Students in Education	Part-time Doctoral Students in Education
1965-66		
1966-67		
1967-68		
1968-69		

22. The following open-ended questions are included for the purpose of ascertaining areas of critical shortage which, in turn, are to be compared with degree production.

    a. What significant curricular changes in the doctoral program in education have been made in the past ten years in your institution?

    b. As an administrator, please list what you feel are the three most critically needed program expansions or new program developments in the field of education at this time, for which additional persons in the field of education at the doctoral level are needed.

Your assistance in this project is deeply appreciated. If you ever need normative information involving combinations of the data on these items, please do not hesitate to direct a request to the Phi Delta Kappa Research Service Center.

GLOSSARY OF AREAS OF CONCENTRATION

Adult education: a course of study leading to the doctoral degree in the field of education which is concerned with curriculum and teacher education as these relate to the purposeful effort toward the self-development of adults. This includes doctoral degrees in the field of education which have major concentrations in continuing education and extension education.

Agriculture education: a course of study leading to the doctoral degree in the field of education which is concerned (a) with the duties and responsibilities related to agriculture and (b) with curriculum and teacher education as these relate to the teaching of agriculture.

Art education: a course of study leading to the doctoral degree in the field of education which is concerned with curriculum and teacher education as these relate to the teaching of the visual and space arts. This includes doctoral degrees in the field of education which have major concentrations in art appreciation, commercial art, design, drawing, fine art, and graphic arts.

Audio visual education: a course of study leading to the doctoral degree in the field of education which is concerned with curriculum and teacher education as these relate to the selection and utilization of materials and procedures that do not depend solely upon the written word. This includes doctoral degrees in the field of education which have major concentrations in radio and TV education.

Business education: a course of study leading to the doctoral degree in the field of education which is concerned with curriculum and teacher education as these relate to developing skills, attitudes, and understandings essential for successful business relationships. This includes doctoral degrees in the field of education which have major concentrations in distributive education.

Education—general (no sub-specialty given): a course of study leading to the doctoral degree in the field of education which is concerned with those phases of learning which be the common experience of all individuals in a society.

Educational measurement and statistics: a course of study leading to the doctoral degree in the field of education which is concerned with the testing, scaling, and appraising aspects of the educational process and of individuals; including test and scale construction, validation and standardization, interpretation of test results, objective and subjective evaluation, and the application of statistical techniques. This includes doctoral degrees in the field of education which have major concentrations in educational research and evaluation.

Educational psychology: a course of study leading to the doctoral degree in the field of education which is concerned with the investigation of the psychological problems involved in education, as well as with the application of psychological principles to education. This includes doctoral degrees in the field of education which have major concentrations in adolescent psychology, child development, child psychology, clinical psychology, personal psychology, psychology, social psychology, and school psychology.

Elementary education: a course of study leading to the doctoral degree in the field of education which is concerned with educational programs that are concerned primarily with general education beginning in childhood and ending approximately with early adolescence, in which the emphasis is on the basic tools of learning. This includes doctoral degrees in the field of education which have major concentrations in kindergarten education, nursery education, and pre-elementary education.

English education: a course of study leading to the doctoral degree in the field of education which is concerned with curriculum and teacher education as these are related to the teaching of English. This includes doctoral degrees in the field of education which have major concentrations in English as a second language.

Foreign language education: a course of study leading to the doctoral degree in the field of education which is concerned with curriculum and teacher education as these relate to the education which have major concentrations in linquistics.

General Curriculum: a course of study leading to the doctoral degree in the field of education which is concerned (a) with the organized experience that a student has under the guidance of a school and/or (b) with a systematic group of courses required for graduation or certification in a major field of study. This includes doctoral degrees in the field of education which have concentrations in co-curricular education, core curriculum, curricular supervision, general curriculum, and general planning.

Guidance and counseling: a course of study leading to the doctoral degree in the field of education which is concerned (a) with the systematic assistance to pupils and others to help them to assess their abilities and liabilities and (b) with the use of that information to help the individual achieve the optimum adjustments of which he is capable. This includes doctoral degrees in the field of education which have major concentrations in counseling psychology, group process and development, and vocational counseling.

Higher education: a course of study leading to the doctoral degree in the field of education which is concerned (a) with educational programs that are concerned primarily with education beyond the level of the secondary school and (b) with the direction, control, and management of all matters pertaining to colleges and universities. This includes doctoral degrees in the field of education which have major concentrations in college and university administration, college and university business administration, college student personnel administration, and community-junior college education.

History and philosophy of education: a course of study leading to the doctoral degree in the field of education which is concerned with the careful, critical, and systematic study of education as a whole and as an integral part of man's culture. This includes doctoral degrees in the field of education which have major concentrations in comparative education, foundations of education, and international education.

Home economics education: a course of study leading to the doctoral degree in the field of education which is concerned with curriculum and teacher education as these relate to the teaching of home economics. This includes doctoral degrees in the field of education which have major concentrations in clothing and textiles, home and family or homemaking, and nutrition.

Mathematics education: a course of study leading to the doctoral degree in the field of education which is concerned with curriculum and teacher education as these relate to the teaching of mathematics.

Music education: a course of study leading to the doctoral degree in the field of education which is concerned with curriculum and teacher education as these relate to the teaching of music. This includes doctoral degrees in the field of education which have major concentrations in elementary music education, instrumental music concentration, music appreciation, secondary music education, and vocal music concentration.

Nursing education: a course of study leading to the doctoral degree in the field of education which is concerned with curriculum and teacher education as these relate to the teaching of nursing programs for either Registered Nurses (RN) or Licensed Practical Nurses (LPN).

Physical and health education: a course of study leading to the doctoral degree in the field of education which is concerned with the curriculum and teacher education as these relate (a) to activities designed to promote desirable physical development, motor skills, attitudes, and habits of conduct and (b) to factual material pertaining to health and health practices and attitudes, both physical and mental. This includes doctoral degrees in the field of education which have major concentrations in athletics, outdoor education, recreation, safety education, and sex education.

Reading: a course of study leading to the doctoral degree in the field of education which is concerned with the psychology, problems, and teaching of reading in any educational framework.

Religious education: a course of study leading to the doctoral degree in the field of education which is concerned (a) with the indoctrination in the beliefs of any religion or denomination or (b) with the instruction about religions or religious literatures for informational, inspirational, or moral purposes.

School administration: a course of study leading to the doctoral degree in the field of education which is concerned with the direction, control, and management of all matters pertaining to school affairs. This includes doctoral degrees in the field of education which have major concentrations in educational administration, elementary administration, general administration, school business administration, school law, and secondary administration.

Science education: a course of study leading to the doctoral degree in the field of education which is concerned with facilities, curriculum, and teacher education as these relate to the teaching of science.

Secondary education: a course of study leading to the doctoral degree in the field of education which is concerned with the educational programs that are planned especially for young people of ages approximately twelve to seventeen, in which the emphasis shifts from the mastery of basic tools of learning to the use and extension of these tools in exploring thought and living and to the acquisition of more detailed information and higher intellectual skills.

Social science education: a course of study leading to the doctoral degree in the field of education which is concerned with curriculum and teacher education as these relate to the teaching of the social sciences. This includes doctoral degrees in the field of education which have major concentrations in Black studies and human relations.

Special education: a course of study leading to the doctoral degree in the field of education which is concerned with the instruction of pupils who deviate so far physically, mentally, emotionally, or socially from the so-called normal pupils that the standard curriculum and school environment are unsuitable for their needs. This includes doctoral degrees in the field of education which have major concentrations in the education of the blind, the education of the emotionally disturbed, the education of exceptional children, the education of the mentally retarded, the education of the physically handicapped, rehabilitation counseling, and speech correction.

Speech education: a course of study leading to the doctoral degree in the field of education which is concerned with curriculum and teacher education as these relate to the teaching of speech. This includes doctoral degrees in the field of education which have major concentrations in public speaking, dramatic arts, and theatre.

Teacher education: a course of study leading to the doctoral degree in the field of education which is concerned with the program of activities and experiences developed for the preparation and growth of persons planning for, or engaged in, the work of the educational profession.

Vocational education: a course of study leading to the doctoral degree in the field of education which is concerned with the program of learning which is organized to prepare the student for entrance into a particular occupation. This includes doctoral degrees in the field of education which have major concentrations in industrial arts, industries, technical education, and trades.

COMPARISON OF 1956-58 AACTE STUDY AND THE CURRENT STUDY

Findings in the present survey revealed that:

1. A greater return was obtained that in the 1956-58 AACTE Study. *Total surveyed*: 136 out of 145 or 93.8%. *Institutions with doctoral programs in Eduction*: 113 out of 124, or 91.1%. (The AACTE Study had an 88% return – see page 3 of Volume II.)

2. There was a percent increase in public institutions and a percent decrease in private institutions which offer doctoral programs in the field of Education.

3. There was a percent increase of institutions offering the Ph.D. only and both Ph.D. and Ed.D. degrees, while there was a percent decrease of institutions offering the Ed.D. only.

4. Of the institutions which were in the AACTE Study, 14 which were then offering only one degree had started offering both, while four which had been offering both degrees had discountinued one of the degree programs.

5. There were three institutions which were in the AACTE Study but which had since terminated their doctoral programs in Education.

6. There had been a 54.6% increase in Ph.D. programs and a 28.4% in Ed.D. programs since the AACTE Study.

7. There was a percent decrease in the number of programs administered solely by either the College of Education or the Graduate School, while there was a sharp percent increase in the number of programs administered by dual arrangement.

8. There was a percent increase in the number of degrees conferred by public institutions, while there was a percent decrease in the number of degrees conferred by private institutions.

9. There was a shift westward in the region with the largest number of institutions conferring degrees (from Middle Atlantic to East North Central). There was a shift westward in the regions separated by the Mississippi River, *from* a ratio of 2 to 1 *to* a ratio of 3 to 2.

10. In the AACTE Study, private institutions out-produced public by a ratio of 6 to 5, while in the Current Study, public institutions out-produced private by a ratio of 2 to 1.

11. Largest number of doctorates were produced at institutions under dual administrative control, instead of at institutions under the control of the College of Education (as was found in the AACTE Study).

12. Of the 30 areas of concentration identified, about one-half showed percent increase and about one-half showed percent decrease, since the AACTE Study. The percent decrease in school administration reflected expansions in other areas of concentration.

13. Of the 30 areas of concentration identified, 21 showed an increase in the number of programs. Furthermore, five showed a decrease and four remained unchanged – since the AACTE Study.

14. There was a slight increase in the percent of institutions requiring a bachelor's degree for admission, but the results were generally compatible with the AACTE Study.

15. There was a large decrease from 64% to 35% of institutions requiring a master's degree for admission. Apparently, many institutions are now requiring only the equivalency of credit hours corresponding to a master's degree.

16. There was a slight increase of institutions utilizing the undergraduate grade point average for admission.

17. There was an increase in the percent of institutions utilizing the graduate-grade-point average for admission. This apparently implies an emphasis on the equivalency of hours corresponding to the master's degree.

18. There was an increase in the percent of institutions requiring letters of recommendation for admission. Apparently there was now a greater reliance on statements of previous work and professional experience.

19. There was a decrease from about 49% to about 15% of institutions requiring a teaching certificate for admission. This was more peculiar to Ed.D. programs but there was apparently a general de-emphasis in this requirement.

20. There was slight decrease in the percent of institutions requiring teaching experience for admission – possibly a trend toward de-emphasis.

21. There was little change in the preferred maximum age for admission. However, there was a decrease in the number of institutions holding to such a requirement,

implying a possible trend toward de-emphasis of this requirement.

22. There was no appreciable change in the percent of institutions permitting provisional admission.

23. The examinations utilized for admission were generally unchanged. The choices were not fewer, and there was greater emphasis on the Graduate Record Examination and the Miller Analogies Test.

24. There was an increase in departmental responsibility for admissions interviewing and a decrease in other areas.

25. There was a percent increase of institutions offering admissions counseling service.

26. There was an increase emphasis on the Education unit in offering admissions counseling.

27. There was a decrease in the percent of institutions using the semester system. There was a decrease in number and percent of institutions in the AACTE Study using the semester system.

28. The minimum number of hours required was now generally fixed at a higher level.

29. There was a greater number of hours beyond the master's degree now being specifically required.

30. There were now fewer number of hours being permitted to be transferred from other institutions. This inferred a trend of requiring more hours in residence.

31. There was no significant change noted in the requirement to complete some type of residency requirement.

32. There was no significant change noted in the maximum time allowed for degree completion.

33. Ph.D. programs were requiring fewer hours in professional Education, while Ed.D. programs were requiring more hours.

34. There was little change in the requirement of hours outside the field of Education.

35. There was a percent increase in programs requiring a major and minor plus a cognate and a percent increase in programs requiring no major or minor. There was a percent decrease in programs requiring a major and minor in Education only.

36. There was a large decrease in the percent of institutions having courses restricted solely to doctoral students.

37. There was a sharp increase in the percent of institutions requiring core or tool subjects, except in the area of curriculum which showed a percent decrease.

38. The elimination of the language requirement was the most significant change regarding the foreign language requirement.

39. There was general de-emphasis of the formal foreign language requirement. There was an increased percentage of institutions permitting waivers of at least one foreign language. While statistics and computer programming were the most frequently employed waivers, the addition of other waivers was noted.

40. In satisfying the terminal research project, there was a distinct trend toward the formal dissertation, with percent decreases noted for other choices. The net effect of this appeared in making the Ph.D. and the Ed.D. more nearly similar. (This supports the trend indicating the lack of differentiation between the two degrees.)

41. There was an increase in the percent of Ph.D. and Ed.D. programs using entrance and intermediate examinations. There was no change in the percent of programs using a written final examination. There was a decrease in the percent of programs using candidacy and oral final examinations.

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